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centrica

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Centrica plc Interim Results for the six months ended 30 June 2023

Chris O'Shea, Group Chief Executive

"Nothing is more important than delivering for our customers – its why we are here. Today's results allow us to increase our customer support package to more than £100m, and the new green investment strategy we've announced will see us invest several billion pounds in the energy transition, creating thousands of new well-paid jobs. Our robust balance sheet has allowed us to invest heavily in the UK and Ireland's energy security and will make sure that our customers have cleaner energy at the right price.

Centrica is now a more focused and higher quality business. Our integrated portfolio of businesses and the relentless focus from our 20,000 amazing colleagues has enabled us to deliver another strong financial performance, which includes significant one-off recovery of past costs through the UK price cap mechanism.

I'm proud of the incredible work our colleagues do every day to help customers struggling with the cost-of-living crisis. We are doing more than any other UK energy company – and we will continue to be there when our customers need us."

Strong performance from our balanced portfolio

- Adjusted operating profit (AOP) of £2.1bn (2022: £1.3bn). Adjusted basic EPS of 25.8p (2022: 11.0p).
- Statutory operating profit of £6.5bn (2022: £1.1bn loss). Statutory basic EPS of 73.0p (2022: 14.7p loss).
  - £4.7bn non-cash pre-tax gain on certain re-measurements (2022: £2.5bn loss), largely reflecting the unwind of unrealised losses from UK energy supply hedging positions at the end of 2022.
- Group free cash flow of £1.4bn (2022: £0.6bn), in line with the increase in AOP.
- Statutory net cash flow from operating activities of £2.5bn (2022: £0.2bn) includes £1.1bn of margin cash and collateral inflow (2022: £0.5bn outflow).
- Closing adjusted net cash of £3.1bn compared to £1.2bn at the end of 2022.
- Interim dividend up 33% to 1.33p per share.
- Share buyback programme extended by £450m.
- 2023 full year adjusted earnings and free cash flow expected to be heavily weighted towards H1.

A refreshed strategy focused on creating value through the energy transition

- A balanced portfolio with leading market positions, where each business complements, de-risks and adds value to other parts of the portfolio.
- Delivering ~£800m of sustainable AOP from our Retail and Optimisation businesses, with additional material cash flows from existing Infrastructure assets over the medium term.
- Strong liquidity and a robust balance sheet, with net debt/EBITDA of <1x over the medium term.
- A green-focused investment strategy with annualised investment building to £600m-£800m until 2028, delivering average portfolio post-tax unlevered returns of 7-10%+, with further Group portfolio benefit. Expect to maintain Return on Average Capital Employed of at least 20% through the investment horizon.
- Progressive dividend policy trending to 2x earnings cover over time.

Continuing to deliver for our customers, colleagues and communities

- Investing in strengthening the UK's energy security of supply, with asset life extensions for nuclear plants and the Morecambe Bay gas field, doubling gas storage capacity at Rough, opening the Codford solar farm and exploring hydrogen partnerships.
- Helping customers manage their energy bills by supporting them on over one million occasions and committing to £100m in additional customer support since the start of the energy crisis.
- Progressing our ambition to recruit 500 veterans, reservists, spouses and partners by the end of 2023.
- ~£650m of corporation tax and Upstream levies paid or payable in H1 2023.

Financial summary

Six months ended 30 June	2023	2022
Total Group		
Adjusted EBITDA	**£2,304m**	£1,660m
Adjusted operating profit	**£2,083m**	£1,342m
Adjusted tax charge	**(£586m)**	(£581m)
Adjusted effective tax rate	**28%**	46%
Adjusted earnings attributable to shareholders	**£1,466m**	£643m
Adjusted basic earnings per share (EPS)	**25.8p**	11.0p
Interim dividend per share (DPS)	**1.33p**	1.0p
Group total free cash flow	**£1,377m**	£643m
Group adjusted net cash	**£3,061m**	£316m
Statutory operating profit / (loss)	**£6,462m**	(£1,099m)
Statutory earnings / (loss) attributable to shareholders	**£4,150m**	(£864m)
Statutory basic earnings / (loss) per share	**73.0p**	(14.7p)
Statutory net cash flow from operating activities	**£2,485m**	£165m

See notes 3, 4 and 9 to the Financial Statements and pages 71 to 75 for an explanation of the use of adjusted performance measures.

Group performance indicators

Six months ended 30 June	2023	2022	Change
Total recordable injury frequency rate (per 200,000 hours worked)	**1.10**	1.12	(2%)
Total customers ('000) (i)	**10,234**	10,259	(0%)
Group direct headcount (ii)	**20,590**	20,567	0%
Group colleague engagement (%)	**76%**	73%	3ppt

All 2022 comparators are as at 31 December 2022.

(i) Includes British Gas Energy, British Gas Services & Solutions and Bord Gáis Energy households and small and medium business customer sites in British Gas Energy and Centrica Business Solutions.

(ii) 2022 restated to reflect change in reporting methodology due to using updated payroll system data.

Investor presentation

Centrica will hold its 2023 Interim Results presentation for analysts and institutional investors at 10.30am (UK) on Thursday 27 July 2023. There will be a live audio webcast of the presentation and slides. Please register to view the webcast at:

https://webcasts.centrica.com/centrica130

Enquiries

Investors and Analysts:	tel: +44 (0)1753 494900	email: ir@centrica.com
Media:	tel: +44 (0)1784 843000	email: media@centrica.com

Unless otherwise stated, all references to the Company shall mean Centrica plc, and references to the Group shall mean Centrica plc and all of its subsidiary entities and associate/joint venture undertakings.

The person responsible for arranging the release of this announcement on behalf of the Company is Raj Roy, the Company Secretary.

Group Overview

Strong operational and financial performance from our balanced portfolio

Over the past three years we have been focused on stabilising our business and improving operational performance. The significant progress we have made came through in our performance in the first half of 2023.

In our Retail businesses, we continue to invest in our operations and in customer service, and saw the benefit flow through in improved performance metrics in British Gas Energy and British Gas Services & Solutions. In Optimisation, the breadth and scale of Energy Marketing & Trading's physical positions and world class capabilities allowed us to create value, while also adding value to other businesses in the Group. In our Upstream Infrastructure businesses, we delivered good volumes and availability from Spirit Energy, Nuclear and Centrica Storage. Importantly, we have also been able to extend the lives, and therefore cash flows, of assets while helping UK security of supply. In addition, across the Group we saw a further increase in colleague engagement, to 76%, 13ppts higher than 12 months ago and 3ppts higher than at December 2022.

This strong operational performance helped underpin a robust financial result from our balanced portfolio. Adjusted basic earnings per share (EPS), which included material recovery of costs incurred in prior periods through the regulatory price cap mechanism in British Gas Energy, more than doubled to 25.8p compared with H1 2022. Statutory EPS was 73.0p (H1 2022: loss of 14.7p), with a significant unwind of unrealised losses on hedging positions from the end of 2022. Reflecting the strong adjusted earnings growth, free cash flow also more than doubled to £1.4bn, and statutory net cash flow from operating activities was £2.5bn (H1 2022: £0.2bn), including £1.1bn of margin cash and collateral inflow.

Having re-commenced cash returns to shareholders last year with a 2022 interim dividend of 1.0p per share, we are increasing the 2023 interim dividend by 33% to 1.33p per share. We are also intending to extend our existing share repurchase programme by £450m to £1bn, to be completed over the next 12 months. We expect our focus by then to be on delivering material investments as part of our green-focused investment strategy as we look to ensure we maintain balance in our portfolio, and any further surplus capital distributions will be reviewed against our revised capital framework.

Creating value through the energy transition

With the operational turnaround of Centrica now materially complete we are moving to the next phase of our strategy. We will look to underpin Centrica for the future, delivering sustainable earnings from our core businesses, investing for longer-term value and growth and delivering attractive shareholder returns.

A uniquely integrated energy company

Centrica is a uniquely integrated energy company, with market leading positions across the energy value chain. Our business model has been designed to be resilient in all scenarios, able to benefit from the growing complexity of the evolving energy system.

In Retail we have over 10m customers across British Gas Energy, British Gas Services & Solutions, Bord Gáis Energy and Centrica Business Solutions. We have strong brands and the UK's largest energy services workforce, which we believe will play an important role in the UK's decarbonisation journey. Our Infrastructure businesses bring gas and electricity to the market every day through Spirit Energy and our stake in the UK's existing nuclear fleet. Over the past 12 months we have been able to extend asset lives and they will remain important parts of our portfolio over the medium term. We also have Centrica Storage's unique Rough gas storage asset, which provides more than half the UK's gas storage capacity.

Our existing gas production and nuclear assets will decline naturally over time, so to maintain balance in our portfolio we need to invest to replace this with new infrastructure. We already have a growing number

of flexible and renewable power assets in Centrica Business Solutions and Bord Gáis, and have plans to materially increase investment over the coming years as part of our green-focused investment strategy.

At the centre of our Retail and Infrastructure energy flows sits our Energy Marketing & Trading Optimisation business. This is the glue that binds the Group together, and has demonstrated its ability to add significant value to the Group over the past 18 months.

Each of our businesses complements, de-risks and adds value to other parts of the portfolio, with our strong positions and capabilities meaning we are ideally placed to create value from the Energy Transition.

Strong tailwinds from market dynamics offering a broad range of investment opportunities
UK Electricity demand is set to grow materially over the coming years, while the electricity mix is also becoming greener and more intermittent with a growing penetration of renewables. These market dynamics provide us with material, attractive investment opportunities across the energy value chain, aligned to capabilities we have today.

In customer activities, we will continue to invest in energy management and demand response capabilities, while we will also start our own smart meter asset provision. In addition, we will invest in new renewable and flexible power assets, which could be our own projects or by investing with partners. Our strong optimisation capabilities will allow us to capture additional value from these investments.

Longer term, we also retain optionality for potential hydrogen and carbon capture investments through our Rough and Spirit Energy assets. While still at an early stage, and dependent on government regulatory mechanisms, these provide us with long-term net zero aligned optionality. We may also be interested in investing in new nuclear, dependent on how the regulatory framework develops.

These opportunities are aligned to our net zero ambitions, and through our green-focused investment strategy we will build investment levels to £600m-£800m per year until at least 2028. Over 50% of our capital expenditure is expected to go into green taxonomy eligible projects, compared to only 5% two years ago. This will help us meet our targets to achieve net zero by 2045, and help our customers reach net zero by 2050.

Leading market positions and growth potential in Retail
We have enviable positions in British Gas Services & Solutions, with 7,000 directly employed engineers, a wide product range and our in-house training academies. In our core protection offering, improved operational foundations, in addition to ongoing planning and supply chain projects, will improve efficiency and help further improve customer retention. We are also taking a different approach to customer acquisitions, with improved digital channels and regular refreshing of our propositions aimed at driving a return to customer growth.

In addition, on-demand services is a market in which we have only 1% share today, providing us with a large growth opportunity. Recent recruitment and productivity improvements mean we now have the capacity to focus on growing in this area, leveraging our brand, our scale and our supply chain capabilities. We also see an opportunity to grow in the boiler installation market, where we have less than 10% market share, as we focus on improving our digital channels and our customer journeys.

Over time, the residential heating technology mix is expected to transition away from gas boilers towards newer technology such as heat pumps. We are uniquely placed to support this transition with the UK's largest energy services workforce.

In UK residential energy supply, the market has been challenging for all suppliers including British Gas Energy. We have been the only major supplier to consistently make a profit since the default tariff cap came into effect in 2019, delivering an average adjusted operating profit margin of 1.1% between 2019 and 2022. When normalising for costs incurred over this period that were recovered in H1 2023, this

margin would have been over 2%, which compares with the 1.9% margin the price cap is currently designed to give the average supplier. This reflects our relative strength, in particular our energy procurement and risk management capabilities.

The regulatory environment has also changed, with greater focus on capital adequacy requirements largely in response to supplier failures over the past two years. Ofgem are also consulting on changes to the price cap structure, which at current prices would allow an increased 2.4% margin for the average supplier.

Against this backdrop, we are focused on delivering a simple customer experience and reducing our cost per customer, which is being enabled through migration of customers on to our modern, more efficient 'Software as a Service' IT platform. We have now migrated around 3 million residential customers, with the NPS for customers on the new platform nearly double that of customers on the legacy platform. In addition, we have driven an average 8% reduction per year in cost per customer since 2019, and we see the possibility for this to reduce by a further 10-15% over time as our processes continue to improve and all customers migrate onto the new platform.

Sustainable EM&T profitability and growth potential utilising our world class capabilities
Energy Marketing & Trading (EM&T) plays a critical role for the Group, supporting both our Retail and Infrastructure activities. Its primary purpose is to procure and deliver physical gas and electricity for our energy supply businesses, while it also provides a route-to-market for the output from our infrastructure assets, helping to optimise these and add additional returns.

In addition to the role it plays for the Group, EM&T's other lines of business are all anchored around physical assets. In Gas & Power Trading, we have over 10TWh of European gas storage capacity, alongside substantial cable and pipeline capacity. We are now active in over 25 countries, giving us distinctive insights into energy markets, with scope to expand through disciplined new market entries.

We have almost 16GW of third party renewable and flexible assets in our Renewable Trading & Optimisation (or Route-to-Market) business, providing market access and balancing services for customer owned assets. This is a key capability aligned to the energy transition and our ambition is to double capacity over the next five years, with a corresponding increase in gross margin compared to a 2021 base.

In LNG, a business built up over the past 15 years, we have tremendous capabilities and a valuable and flexible global portfolio of contracts and positions. With three new flexible contracts coming on stream in the coming years, including the recently announced Delfin contract, we are incredibly well placed to capture additional value through optimisation.

Infrastructure will continue to deliver significant cash flows
Over the past 12 months, Centrica Storage, Nuclear and Spirit Energy have all seen significant developments that will extend lives of their assets. Rough returned to gas storage activities last year, and in H1 2023 we announced an increase in capacity to 54bcf from 30bcf. We now have exclusive use of the asset until at least 2030. The Heysham 1 and Hartlepool nuclear power stations have been extended by two years to 2026, with a plus or minus one year window. We now expect Spirit Energy's Morecambe Bay gas fields to run until the end of this decade, having originally planned to stop production around the middle of this decade. Our Infrastructure assets are expected to continue to deliver material cash flows for the Group in the medium term.

In addition, Centrica Storage and Spirit Energy retain net zero optionality given their favourable locations close to major demand clusters. Ultimately Rough could store up to 200bcf of hydrogen and Morecambe could play a key role in carbon capture, utilisation and storage (CCUS), having been awarded a carbon capture licence in May 2023.

We also plan to invest in flexible and renewable power assets, supporting the UK's security of supply while helping to maintain balance in our portfolio as existing infrastructure assets naturally decline over this

decade. We are already accelerating spend in this area, developing a pipeline of projects with around 600MW in the detailed planning or delivery phase in addition to around 600MW of operational assets. We also have around 2GW of early phase prospects that will continue to evolve as we assess options and new opportunities come to light.

Delivering sustainable operating profit

Having simplified our portfolio and improved operational performance, we remain focused on delivering sustainable profitability from our portfolio. We expect to deliver around £800m of adjusted operating profit on average each year over the medium term from our Retail and Optimisation activities, equivalent to around 11-12 pence of adjusted earnings per share given current tax rates and expected share count. The exact profit number may flex with market conditions in any given year.

Of the £800m we expect:

- UK residential energy supply to make £150m-£250m of adjusted operating profit per year on average, supported by our work to improve customer experience and reduce cost per customer and utilisation of our world class energy procurement and risk management capabilities. This assumes current regulations, including proposed Ofgem changes to the default price cap methodology.
- British Gas Services & Solutions to continue to recover, underpinned by improved operations, new technology and refreshed customer offerings. Over the next three years, we would expect adjusted operating profit to build to £100m-£200m per year.
- Energy Marketing & Trading to deliver adjusted operating profit of £250m-£350m per year on average from the current portfolio, with potential upside in favourable market conditions as we saw in 2022 and H1 2023.
- UK business energy supply and Bord Gáis Energy to deliver combined adjusted operating profit of £100m-£200m, with continued good delivery of margins and sales performance from UK business energy supply, and Bord Gáis Energy continuing to demonstrate the value of its integrated energy model.

In addition, and reflecting recent life extensions, we expect our existing Infrastructure businesses, Spirit Energy, Nuclear and Centrica Storage, to continue to contribute material medium-term cash flows. Over time, these cash flows will be replaced by a contribution from assets we are developing as part of our green-focused investment plan. Earnings from these assets should be more stable, helping provide a more reliable, rateable earnings stream over the longer term.

A strong balance sheet

Our balance sheet has been transformed, with adjusted net cash of more than £3bn at June 2023 compared to adjusted net debt of £3bn at the end of 2020. In addition, decommissioning liabilities and the technical pension deficit in total combined have halved over the same period to around £2bn.

A strong balance sheet and investment grade credit ratings are essential for the efficient running of the Group. As a responsible energy supplier, we manage the risk of providing energy to our customers by hedging our commodity exposures through financial derivatives and other contracts, and as a supplier to nearly a quarter of the UK's households those positions are significant. We also hedge our electricity generation and gas production rateably, which again leverages our strong credit ratings.

Maintaining material liquidity is also important for the Group, with energy system volatility leading to potentially large movements in margin cash. Having material liquidity means we are able to capture value from market disconnects, as seen in the 2022 Energy Marketing & Trading result.

We believe the appropriate medium-term leverage for the Group is up to 1x Net Debt to EBITDA. This provides us with enough headroom to manage volatility in the energy system, to continue to invest for the future and to maintain and grow shareholder distributions.

Compelling shareholder returns
We announced the re-commencement of cash returns to shareholders at the 2022 Interim Results, with a 1.0p per share interim dividend. Given our continued positive progress and strong financial position, we are declaring a 33% increase in the interim dividend to 1.33p per share.

We maintain a progressive dividend policy and expect dividend cover to move to around two times adjusted earnings over the coming years, supported by the core sustainable earnings of the Group.

In November 2022, we commenced a £250m share repurchase programme, which we subsequently extended to £550m in February 2023. As at 26 July 2023 we had repurchased over £400m of shares.

Now we have set out our investment plans and capital framework, including our balance sheet priority to retain strong investment grade credit ratings, we intend to return current surplus capital to investors once the current share repurchase programme is completed in October 2023, subject to market conditions at that time. This will be through a £450m extension to the current share repurchase programme, which would take the total buyback amount since November 2022 to £1bn. We expect the programme to complete over the coming 12 months.

Following this, our focus will be on delivering on our investment plans, with any further additional distributions on top of the dividend reviewed against our revised capital framework and our future outlooks.

Investing for growth and creating value from our strong capabilities
As part of our green-focused investment plan, we expect capital expenditure to build to an annualised run rate of £600m-£800m until 2028 at least. We expect 2023 and 2024 to be towards the bottom end of this range as we build our pipeline and our capability, and the actual spend in any given year is likely to differ, as it will depend on our development funnel and what projects make it through our robust investment framework. We are not assuming any material spend on Rough redevelopment or Morecambe within this range.

As part of our investment framework we are targeting average portfolio post-tax unlevered returns of at least 7-10%+. For investment in customer energy assets, such as smart meter asset provision, we would expect to make a post-tax unlevered return of at least 8%, with negligible pre-productive capital given the nature of the investments. For renewables, we expect post-tax unlevered returns of at least 6-9%, with projects that have lower risk towards the bottom end of the range. Investments in flexibility assets are expected to make post-tax unlevered returns of at least 7-10%, with the precise hurdle rate again dependent on the risk profile. At a portfolio level, despite the expected ramp up in investment over the coming years, we would expect Group Return on Average Capital Employed to remain above 20% over the investment horizon.

For our potential larger scale infrastructure projects such as Rough or Morecambe, we would only invest in these if government regulatory support was in place.

We are also targeting Group portfolio benefit including from optimisation of up to 2%, with additional investments complementing the Group's overall capabilities, positions and exposures.

A compelling investment case creating value through the Energy Transition
Centrica is very well placed to create value through the Energy Transition. We are a uniquely integrated energy company, with a balanced portfolio where each component complements, de-risks and adds value to other businesses. We are well positioned for the future of energy.

We expect to deliver around £800m of sustainable operating profit from Retail and Optimisation each year, with incremental growth potential and additional strong medium-term cash flows from Infrastructure.

We are commencing a green-focused growth and investment strategy, creating value for shareholders and delivering net zero for Centrica and our customers. We plan to invest £600m-£800m per year at least until 2028, making attractive returns with additional portfolio benefits on top. We will do this while maintaining balance sheet strength, strong liquidity and capital discipline.

We will aim to deliver compelling shareholder returns, including through our progressive dividend policy and returning surplus capital to shareholders when appropriate. Centrica is well set up for the future, and well positioned to create value from the energy transition.

Acting responsibly through the energy crisis

Supporting customers
We remain very aware of the difficult environment that many customers continue to face against the backdrop of high energy bills and wider inflationary pressures. Having announced we would contribute 10% of energy supply profits in the UK and Ireland to help customers for the duration of the energy crisis, we committed £50m of support last year, including help for small business and prepayment customers. We have now committed a further £50m to take the total to £100m since the start of 2022.

Protecting vulnerable customers is a priority for us and therefore we were extremely disappointed by the allegations from February surrounding one of our third-party contractors and their approach to pre-payment customers. We undertook our own investigation, overseen by an independent regulatory compliance consultancy, which concluded that there were no systemic failings in the way British Gas handled the fitting of prepayment meters under warrant. However, it did find evidence that in a small number of cases, things had gone wrong, or we could have acted differently. We have already taken proactive action to address this, including stopping the use of third party contractors to carry out the installation of prepayment meters under warrant, and committing to Ofgem's voluntary Code of Practice on prepayment installations under warrant.

We also continue to look for other ways to help our customers, and in June we launched 'Summer Sundays', a 'PeakSave' initiative which offers smart meter customers half price electricity between 11am and 4pm on Sundays until the end of September. We will continue to launch new and innovative tariffs, to help our customers manage their energy usage and save money on their bills.

Supporting colleagues
We continue to support our colleagues through these challenging times. In addition to a cost of living payment made in December 2022 to all colleagues, we chose to back-date colleague annual pay rises normally awarded in April to January, giving colleagues 3 months additional benefit. We have also been increasing the number of mental health first aiders in the business, recognising the need to support colleagues' emotional wellbeing, and helping to destigmatise talking about mental health at work. In June, we launched the Centrica Colleague Support Foundation, which will provide colleagues with financial support when they need it most.

As well as supporting our existing staff, we continue to create new skilled jobs, with our Diversity & Inclusion Action Plans intended to attract, promote and retain more diverse talent within the business. We are also progressing our ambition to recruit 500 veterans, reservists, spouses and partners by the end of 2023.

Supporting communities
We continue to take our responsibilities to communities seriously. Over the past winter we provided over £100m of support to vulnerable customers through the Warm Homes Discount. In addition, the British Gas Energy Trust supports those who are struggling to pay their bills, regardless of their energy supplier. Currently it funds 45 local money and energy advice projects allowing communities to access the help and support they need.

Colleagues donated 1,661 volunteering days in the first six months of 2023, more than treble the figure from H1 2022, and we committed £2m to local causes that our colleagues care passionately about.

We have also announced new partnerships with the Scottish Football Association and Scottish Rugby to support grassroot activities and to support them in reducing energy bills and their decarbonisation plans.

Business unit operational, commercial and financial performance

Fixing the operational foundations in British Gas Services & Solutions to enable growth

British Gas Services & Solutions	2023	2022	Change
Services customers ('000) (closing) (i) (ii)	**2,915**	3,141	(7%)
On-demand jobs ('000) (iii)	**93**	65	43%
Boiler installs ('000)	**49**	49	0%
Services complaints per customer (%) (iv)	**4.7%**	6.5%	(1.8ppt)
Services Engineer NPS (i) (v)	**70**	64	6pt
Adjusted operating profit (£m)	**20**	7	186%

All 2023 metrics and 2022 comparators are for the 6 months ended 30 June unless otherwise stated.

(i) 2022 comparator at 31 December 2022.

(ii) Services customers are defined as single households having a contract with British Gas Services & Solutions.

(iii) On-demand jobs are defined as Services & Repair one off on-demand repairs, home improvements & maintenance.

(iv) Total complaints, measured as any oral or written expression of dissatisfaction, as a percentage of average customers over the year.

(v) Measured independently, through individual questionnaires, the customer's willingness to recommend British Gas following a gas engineer visit.

Our focus in British Gas Services & Solutions for the past two years has been on improving the operational foundations of the business and we have made good progress. Key operational metrics are the best they have been since 2019 and the business returned to profitability in H1 2023 having been loss-making in H2 2022.

Following our focus on recruitment over the past two years we have greater engineer capacity which, combined with reduced absence levels and improved engineer productivity, meant we were better able to meet customer demand. This translated into a reduction in the number of rescheduled appointments to 3% (H1 2022: 7%), while we also resolved 75% of call outs on the first visit, a 3ppt improvement on H1 2022. These improvements were reflected in higher levels of customer satisfaction, with a 1.8ppt reduction in complaints per customer compared to H1 2022 and a 6pts increase in engineer NPS over the first six months of the year to +70. There is more to do operationally, but we now have the confidence in our foundations to focus on growth.

Customer numbers fell by 226,000, or 7%, over the first half of the year, which reflects the challenging inflationary backdrop, cost of living pressures and the final roll-off of 'free product' customers from the portfolio. However, our improved operational foundations, combined with ongoing improvements to our digital sales channels and refreshed propositions, mean we are targeting a return to customer growth. Our increased capacity and productivity also allows us to focus more on the significant opportunity that exists in the on-demand market. The total number of on-demand jobs in H1 2023 increased by 43% compared with the same period in 2022. In addition, boiler installations remain an important product, with the number of installs flat despite a declining market, although we achieved a higher margin per installation through improved operations and a more targeted commercial offering.

British Gas Services & Solutions adjusted operating profit increased to £20m in H1 2023 (H1 2022: £7m).

- H1 2022 included £25m of one-off, largely Covid-19 related, costs which did not repeat in H1 2023. These included higher customer compensation, the impact of higher absence rates and increased workload resulting from contract customers having non-urgent jobs completed that they had chosen to have delayed during the pandemic.

- We saw a negative impact of lower customer numbers on adjusted operating profit, however this was offset by the positive impact of improved margin focus and higher productivity in the boiler installation business.
- We also continue to see the impact of inflationary cost pressures, on both direct labour as we supported our colleagues through the cost of living crisis, and on third party costs. Having chosen not to fully pass these through in pricing to our customers in 2022 and 2023, this resulted in a negative impact on adjusted operating profit of approximately £25m in H1 2023.
- We also saw a £25m reduction in pension costs reflecting the impact of higher interest rates on the pension discount rate, partially offset by incremental costs due to further investment in the business.

Improved operational foundations and strong financial performance in British Gas Energy

British Gas Energy	**2023**	2022	Change
Residential energy customers (‘000) (closing) (i) (ii)	**7,492**	7,516	(0%)
Small business customer sites (‘000) (closing) (i)	**529**	480	10%
Energy complaints per customer (%) (iii)	**7.7%**	6.6%	1.1ppt
Energy Touchpoint NPS (i) (iv)	**16**	13	3pt
Annualised cost per residential energy customer (excl. bad debt) (£) (i)	**86**	83	4%
Adjusted operating profit (£m)	**969**	98	889%

All 2023 metrics and 2022 comparators are for the 6 months ended 30 June unless otherwise stated.

(i) 2022 comparator at 31 December 2022.

(ii) Residential energy customers are defined as single households buying energy from British Gas Energy.

(iii) Total complaints, measured as an expression of dissatisfaction in line with submissions made to Ofgem, as a percentage of average customers over the year.

(iv) Measured independently, through individual questionnaires, the customer’s willingness to recommend British Gas Energy following contact.

British Gas Energy continues to focus on delivering a simple, more efficient customer experience, enabled by the migration of customers onto our new energy platform. The new platform also allows us to be more agile in launching new customer propositions, including initiatives such as 'PeakSave'. Nearly 1m customers were migrated over the first six months of 2023, taking total residential and small business customers on the platform to over 3m.

Energy Touchpoint NPS improved to +16 overall. This improvement came despite a backdrop of continued high commodity prices, with customers focused on the level of their bills and direct debit payments and customer contact remaining elevated as a result. Reflecting this, we experienced a higher number of complaints than in H1 2022. However, having invested heavily in customer service over the past year, including the recruitment of an additional 700 UK-based contact centre colleagues, we have been able to take swift action to close complaints and resolved around two thirds of cases on the same day.

Residential energy customer numbers were broadly flat as market switching rates remained low. The number of small business customers increased by 10% to 529,000, reflecting our reputation as a trusted and reliable company able to offer customers attractive tariffs and support at a time of price volatility.

Annualised cost per residential energy customer (excluding bad debt) increased by £3 over the first six months to £86, although this would have been flat when excluding a £3 impact from dual running IT costs. This reflects the phasing of costs relating to incremental investment in customer service in H2 2022. We continue to target reductions in cost per customer, and would expect reductions in future years as the phasing of this investment unwinds and customer migration continues to progress, with the new platform lower cost than our legacy systems.

British Gas Energy adjusted operating profit increased by £871m to £969m (H1 2022: £98m).

- The increase was mainly due to one-off factors relating to the default standard variable tariff (SVT) cap which we would not expect in a normal reporting period. In total, the positive impact of recovery of prior period costs through price cap allowances in H1 2023 was approximately £500m. The most material elements of the recovery relate to the impact of increasing and volatile commodity prices from 2021 onwards, which meant the SVT was cheaper than nearly all fixed price tariffs and, as a result, more customers were on the SVT than forecast. This meant all suppliers had to purchase a portion of their electricity and gas at levels above the price cap. Allowances to recover this cost were introduced into the price cap from April 2022, with recovery continuing into H1 2023. In addition, commodity curves through 2022 showed lower prices in future periods, which meant suppliers were unable to match the commodity cost element of the price cap. This impact was particularly pronounced in Q4 2022, and recovery of this also continued into H1 2023. There were also some other less material adjustments. This £500m of cost recovery in H1 2023 compares to approximately £250m of negative impact from unexpected additional SVT demand in H1 2022.
- Profits were also impacted by a number of other factors. We delivered effective risk management and optimisation, while higher commodity prices naturally also drove higher unit margins. These factors were partially offset by the impacts of a reduction in underlying customer consumption, an increase in the bad debt charge, further investment in transforming our customer service and a commitment to make an additional £50m donation to help support customers struggling with their energy bills.

Bord Gáis Energy posts a loss as it continues to absorb higher energy costs

Bord Gáis Energy	2023	2022	Change
Customers (‘000) (closing) (i)	**514**	526	(2%)
Complaints per customer (%) (ii)	**1.1%**	1.0%	0.1ppt
Journey NPS (i) (iii)	**13**	19	(6pt)
Adjusted operating (loss)/profit (£m)	**(27)**	33	nm

All 2023 metrics and 2022 comparators are for the 6 months ended 30 June unless otherwise stated.
(i) 2022 comparator at 31 December 2022.
(ii) Total complaints, measured as any oral or written expression of dissatisfaction, as a percentage of average customers over the year.
(iii) Weighted NPS for the main customer interaction channels.

Bord Gáis Energy reported an adjusted operating loss of £27m (H1 2022: profit of £33m). This reflected continuing pricing pressure in the retail supply market, partially offset by the impact of continued strong availability from the Whitegate CCGT and a solid trading performance.

We continue to help customers where we can, and last year Bord Gáis Energy established an energy support fund to help vulnerable customers, with £2m spent on this fund in H1 2023.

Customer numbers fell by 2% in H1 2023, as the business reduced its focus on customer acquisition against the challenging market backdrop. There was a small increase in customer complaints, and Journey NPS fell 6pts over the first half, reflecting continuing market-wide customer concerns over higher bills. Against this backdrop we continue to invest in customer service and saw improvements in complaint levels as we moved through the period, with Q2 2023 complaints almost half those in Q1 2023.

As part of the push for increased security of supply and decarbonisation in Ireland, and consistent with our refreshed strategy, we have begun work on our two, hydrogen ready, 100MW flexible gas peaking plants in Athlone and Dublin, with an expected total investment of over €300m.

Further strong performance managing a diverse range of physical positions in EM&T

Energy Marketing & Trading (EM&T)	2023	2022	Change
Renewable capacity under management (GW) (i)	**11.7**	11.6	1%
Adjusted operating profit (£m)	**384**	278	38%

All 2023 metrics and 2022 comparators are for the 6 months ended 30 June unless otherwise stated.
(i) 2022 comparator at 31 December 2022.

Our EM&T business delivered further strong performance in H1 2023, demonstrating the benefit of its diverse portfolio of physical contracted positions and in-depth understanding of energy markets to manage system complexity. In addition, EM&T also continued to add value through its core role of risk management and commodity procurement for our Retail energy supply businesses and wholesale market access for our Infrastructure assets.

In Gas & Power Trading, our comprehensive physical portfolio of contracted pipeline, interconnector and gas storage positions across Europe continued to allow us to move gas and power between markets to capture any price arbitrage. Our portfolio, by design, is set up to capture value in all commodity environments, but particularly during periods of market price volatility. Commodity markets were not as volatile overall in H1 2023 as they were in H1 2022, however we were still able to capture value through optimising positions well, particularly in the first quarter of the year.

In Renewable Energy Trading and Optimisation we remain focused on growing our capacity under management as more renewable assets come online across Europe. Renewables and optimisation capacity under management was broadly flat at 15.2GW over H1 2023, of which around 75% is renewable technology, with a further 0.7GW signed but not yet operational. The diverse range of markets we serve and technologies we offer are proving increasingly valuable, as more intermittent generation comes online across Europe.

Our LNG business was profitable in H1 2023, having been loss-making in H1 2022, as we captured value from opportunities created last year and continued to optimise our range of base contractual positions such as the Sabine Pass export contract and our Isle of Grain regassification capacity. We continue to build on these contractual positions to further diversify and de-risk our portfolio and underpin future profitability. In July 2023, we announced the execution of a 15-year Sale and Purchase agreement with Delfin to take 1 million tonnes of LNG, free on board, from their floating facility in the Gulf of Mexico. Operations are expected to commence in 2027. This is in addition to the existing Mozambique purchase contract and Shenergy sales contract, which we also currently expect to commence in the second half of this decade.

EM&T adjusted operating profit increased to £384m (H1 2022: £278m) despite the less volatile market conditions, with higher profit in LNG and Renewable Energy Trading & Optimisation. The EM&T result included a loss of £39m from the remaining Sole Pit legacy gas contract compared to a profit of £25m in H1 2022. At current forward prices we expect adjusted operating losses from the contract to total around £50m across the balance of 2023 until 2025, which is when the contract ends.

Energy Supply in Centrica Business Solutions driving improved financial results

Centrica Business Solutions (CBS)	2023	2022	Change
Energy supply total gas and electricity volume (TWh)	**11.7**	11.8	(1%)
Energy supply complaints per customer (%) [i]	**7.2%**	4.0%	3.2ppt
Energy supply Touchpoint NPS [ii] [iii]	**25**	31	(6pt)
Services order intake (£m)	**102**	114	(11%)
Services order book (£m) [ii]	**663**	670	(1%)
Adjusted operating profit (£m)	**87**	20	335%

All 2023 metrics and 2022 comparators are for the 6 months ended 30 June unless otherwise stated.

(i) Total complaints, measured as any oral or written expression of dissatisfaction, as a percentage of average customers over the year.

(ii) 2022 comparator at 31 December 2022.

(iii) Measured independently, through individual questionnaires, the customer's willingness to recommend.

CBS delivered good performance across its three main activities of energy supply to large and medium-sized businesses, business services, and assets.

In energy supply, volumes remained broadly flat at 11.7TWh compared with H1 2022. We saw a significant increase in the volume delivered to medium-sized businesses, with organic growth alongside the acquisition of the customer book of Avantigas ON Limited in H2 2022. This was offset by the impact of our continued planned shift in focus away from large-scale Commercial and Industrial customers.

We continue to focus on delivering high levels of customer service. Despite stable operational metrics, customer complaints increased by 3.2ppt to 7.2% which reflects ongoing customer concerns around higher energy prices and challenges relating to the government support schemes. Touchpoint NPS also reduced by 6pts to +25.

In services, order intake of £102m was 11% lower than in H1 2022, although after adjusting for the impact of the disposal of our North America optimisation activity during H2 2022, like-for-like services order intake was slightly up. The services order book of £663m was broadly flat compared to December 2022.

In assets, we continue to ramp up the deployment of capital in low carbon and flexible assets, which will play an important role for UK security of supply and decarbonisation, especially in times of high demand or reduced system availability. CBS now has over 300MW of assets in the detailed plans and delivery phase, in addition to operational capacity of 119MW. This includes our first solar farm, at Codford in Wiltshire, with its 18MW of capacity commencing operations in June 2023.

CBS adjusted operating profit increased to £87m (H1 2022: £20m). Energy supply reported a significant improvement in adjusted operating profit to £107m (H1 2022: £33m), mostly driven by strong risk management and commodity procurement performance, supported by customer growth in medium-sized businesses. Services and assets reported an increased combined adjusted operating loss of £20m (H1 2022: loss of £13m) reflecting the impact of lower market volatility on the profitability of flexible assets and the loss of contribution from North America optimisation following the disposal of that part of the business in H2 2022.

Strong asset availability in Upstream helping to offset lower commodity prices

Upstream	2023	2022	Change
Spirit Energy total production volumes (mmboe) (i)	**8.4**	9.3	(10%)
Nuclear power generated (GWh)	**3,648**	4,648	(22%)
Adjusted operating profit (£m)	**654**	906	(28%)

All 2023 metrics and 2022 comparators are for the 6 months ended 30 June.

(i) 2022 excludes production from the disposed Spirit Energy Norwegian and Statfjord UK oil and gas assets of 6.3mmboe.

Please note that profit and inventory from Rough operations are reported under Centrica Storage Limited for presentational purposes only. Centrica Storage Limited does not produce, supply or trade gas, except to the extent necessary for the efficient operation of the storage facility. In accordance with the Gas Act 1986, such production, supply and trading of gas is carried out wholly independently of Centrica Storage Limited by other Centrica group companies.

Total volumes from the retained Spirit Energy assets were down 10% to 8.4mmboe. Liquid volumes were only a small contributor following the sale of the Spirit Energy Norwegian assets in 2022 and gas production volumes decreased by 8% to 471mmth. This reflects good performance at Morecambe, which was more than offset by the expected natural decline across the rest of the portfolio.

Centrica Storage's Rough field returned to gas storage operations in H2 2022, having been operating as a gas production asset since 2017. Asset reliability was very strong over H1 2023 and in June we announced that capacity at Rough had been increased to 54bcf from 30bcf, with sole use granted until at least 2030.

Centrica's share of nuclear generation volumes of 3.6TWh was 22% lower than 2022. This reflects the impact of the Hinkley Point B closure in August 2022 and a planned refuelling outage at Sizewell B in 2023, which was partially offset by good generation volumes across the remaining fleet. It was announced in March 2023 that the Heysham 1 and Hartlepool expected closure dates had been extended by two years to March 2026, with a plus or minus 1 year window either side of this date.

Excluding £485m of adjusted operating profit relating to the disposed Spirit Energy Norwegian assets in H1 2022, Upstream adjusted operating profit increased to £654m (H1 2022: £421m).

- The retained Spirit Energy business reported adjusted operating profit of £108m (2022: £59m), with higher achieved gas prices underpinned by our rateable hedging strategy and lower depreciation charges, which more than offset the impact of lower production volumes.
- Centrica Storage adjusted operating profit was £251m (2022: £76m). This reflects the return to gas storage operations in H2 2022, as we captured high seasonal gas price spreads over the Winter period and delivered incremental optimisation of the asset.
- Nuclear adjusted operating profit was £295m (2022: £286m), with higher achieved power prices reflecting our rateable hedging strategy offset by the lower volumes and impact from the introduction of the Electricity Generator Levy.

A strong first half financial performance

Strong adjusted operating profit and earnings

Adjusted Group EBITDA increased to £2,304m (2022: £1,660m) and adjusted operating profit increased to £2,083m (2022: £1,342m), reflecting the movements in business unit adjusted operating profit as described in the previous section. Adjusted operating costs increased by £322m to £1,292m. The majority of this related to a £173m increase in the bad debt charge, while we also committed another £50m donation to support customers in British Gas Energy, made incremental investment in customer service and saw inflationary impacts across the Group.

The net finance charge fell to £36m (2022: £78m) and the effective tax rate on adjusted operating profit decreased to 28% (2022: 46%), with a change in profit mix away from the more highly taxed upstream businesses towards Retail and Optimisation activities.

Reflecting the above, adjusted earnings attributable to shareholders increased to £1,466m (2022: £643m) and adjusted basic EPS was 25.8p (2022: 11.0p).

Increase in statutory profit reflects the changing commodity price environment

Total exceptional items recognised after tax generated a loss of £320m (2022: profit of £182m), driven predominantly by a £312m impairment of our nuclear investment as a result of lower forecast forward commodity prices which more than offset the positive impact from life extensions at Heysham 1 and Hartlepool.

A gain from certain re-measurements after tax of £3,082m (2022: loss of £1,876m) was recognised in the first half, largely relating to the unwind of out-of-the-money contracts delivered in the period, together with net unrealised mark-to-market derivative gains from our wider portfolios and the release of the onerous energy supply contract provision, both as a result of falling commodity prices.

Reflecting these exceptional items and certain remeasurements, a statutory profit after taxation of £4,245m was recognised (2022: loss of £1,001m). After non-controlling interests, the statutory profit was £4,150m (2022: loss of £864m) with a basic EPS of 73.0p (2022: loss per share of 14.7p).

Robust cash flow generation and continued balance sheet strength

Group free cash flow was £1,377m (2022: £643m), reflecting the strong adjusted EBITDA performance. There was a net working capital outflow of £360m (2022: £438m). This included a £1,555m outflow in British Gas Energy, mainly reflecting the settlement of elevated December 2022 commodity costs in January 2023, and the pass through to customers of Government support scheme payments received in December 2022. Partially offsetting this was a £765m working capital inflow in EM&T driven by the cash conversion of 2022 profits.

Statutory net cash flow from operating activities was £2,485m, an increase of £2,320m compared to 2022, reflecting the higher free cash flow and a £1,113m inflow of margin cash (2022: £519m outflow), which reflects the fall in commodity prices over the first half of 2023.

Interest and pension deficit payments were both lower in 2023 than in 2022, while we returned £340m to shareholders through share buybacks in H1 2023, having commenced shareholder returns in H2 2022.

Reflecting these movements, the Group had adjusted net cash of £3,061m at the end of June 2023 compared to adjusted net cash of £1,199m at the end of 2022.

Pensions triennial valuation

The Group's IAS 19 net pension surplus was £20m at 30 June 2023, compared to a £40m surplus at 31 December 2022.

The technical provisions deficit is based on more conservative assumptions and is used to determine the agreed level of cash contributions into the schemes. In September 2022, we reached agreement with the pension trustees on a March 2021 technical provisions deficit of £944m, with annual deficit contributions remaining unchanged at £175m until 2026. On a roll-forward basis using the same methodology, consequent assumptions and contributions paid, the technical provision deficit would be in the region of £800m at 30 June 2023, compared to £850m as at 31 December 2022.

2023 outlook heavily weighted to the first half

We expect seasonality to drive lower underlying profits in the second half of this year, a normal dynamic for the markets we are in.

As usual, uncertainties remain over the balance of the year, including the impacts of weather, commodity prices, the economic and regulatory backdrop and the competitive environment. This results in a range of possible outcomes for the full year.

We currently expect 2023 full year adjusted EPS and free cash flow to be heavily weighted towards the first half of the year, consistent with what we said in our AGM Statement in June.

As at 30 June 2023, Spirit Energy had sold forward 292mmth of gas for H2 2023 at an average price of 139p/therm, 401mmth of gas forward for 2024 at an average price of 179p/therm and 111mmth of gas forward for 2025 at an average price of 157p/therm.

As at the same date, in Nuclear we had sold 3.1TWh of electricity forward for H2 2023 at an average price of £181/MWh, 3.6TWh forward for 2024 at an average price of £174/MWh, and 0.5TWh forward for 2025 at an average price of £137/MWh.

Group Financial Review

Revenue

Group statutory revenue increased by 60% to £16.5bn (2022: £10.3bn). Group revenue included in business performance, which includes revenue arising on contracts in scope of IFRS9 (see note 4(b) for further details), increased by 43% to £20.5bn (2022: £14.3bn).

Gross segment revenue, which includes revenue generated from the sale of products and services between segments, increased by 36% to £21.7bn (2022: £16.0bn). This was driven largely by the impact of commodity prices on retail tariffs in British Gas Energy, Bord Gáis Energy and Centrica Business Solutions, partially offset by the impact of lower commodity volatility on revenue in Energy Marketing & Trading.

A table reconciling the different revenue measures is shown in the table below:

			2023			2022
Six months ended 30 June	**Gross segment revenue £m**	**Less inter-segment revenue £m**	**Group revenue £m**	Gross segment revenue £m	Less inter-segment revenue £m	Group revenue £m
British Gas Services & Solutions	**780**	**(27)**	**753**	744	(22)	722
British Gas Energy	**11,889**	**—**	**11,889**	5,090	—	5,090
Bord Gáis Energy	**1,037**	**—**	**1,037**	784	—	784
Centrica Business Solutions	**1,977**	**(3)**	**1,974**	1,295	(11)	1,284
Energy Marketing & Trading	**4,402**	**(290)**	**4,112**	6,355	(113)	6,242
Upstream	**1,606**	**(885)**	**721**	1,695	(1,515)	180
Group revenue included in business performance	**21,691**	**(1,205)**	**20,486**	15,963	(1,661)	14,302
Less: revenue arising on contracts in scope of IFRS 9 included in business performance			**(3,971)**			(3,987)
Group Revenue			**16,515**			10,315

Operating profit / (loss)

Adjusted operating profit increased to £2,083m (2022: £1,342m, or £857m when excluding the disposed Spirit Energy assets). The statutory operating profit was £6,462m (2022: loss of £1,099m). The difference between the two measures of profit relates to exceptional items and certain remeasurements, which are explained on pages 19-21. A table reconciling the different profit measures is shown below:

Six months ended 30 June	Notes	2023 Business performance £m	2023 Exceptional items and certain re-measurements £m	2023 Results for the year £m	2022 Business performance £m	2022 Exceptional items and certain re-measurements £m	2022 Results for the year £m
British Gas Services & Solutions		**20**			7		
British Gas Energy		**969**			98		
Residential energy supply		*913*			*55*		
Business energy supply		*56*			*43*		
Bord Gáis Energy		**(27)**			33		
Centrica Business Solutions		**87**			20		
Energy Marketing & Trading		**384**			278		
Core EM&T		*423*			*253*		
Legacy gas contract		*(39)*			*25*		
Upstream		**654**			421		
Spirit Energy (retained)		*108*			*59*		
Centrica Storage		*251*			*76*		
Nuclear		*295*			*286*		
Profit share		**(4)**			—		
Adjusted operating profit excl. disposed Spirit Energy assets		**2,083**			857		
Spirit Energy disposed assets		—			*485*		
Group operating profit/(loss)	4(c)	**2,083**	**4,379**	**6,462**	1,342	(2,441)	(1,099)
Net finance cost	8	**(36)**	**—**	**(36)**	(78)	—	(78)
Taxation	9	**(564)**	**(1,617)**	**(2,181)**	(571)	747	176
Profit/(loss) from operations		**1,483**	**2,762**	**4,245**	693	(1,694)	(1,001)
Less: (Profit)/loss attributable to non-controlling interests		**(17)**	**(78)**	**(95)**	(50)	187	137
Adjusted earnings/(loss) attributable to shareholders		**1,466**	**2,684**	**4,150**	643	(1,507)	(864)
Adjusted earnings attributable to shareholders excluding disposed Spirit Energy assets		*1,466*			*598*		

Profit and inventory from Rough operations are reported under Centrica Storage Limited for presentational purposes only. Centrica Storage Limited does not produce, supply or trade gas, except to the extent necessary for the efficient operation of the storage facility. In accordance with the Gas Act 1986, such production, supply and trading of gas is carried out wholly independently of Centrica Storage Limited by other Centrica group companies.

Group operating profit from business performance (adjusted operating profit)
The increase in adjusted operating profit was primarily due to an increase in British Gas Energy, including industry-wide cost recovery through default price cap allowances relating to prior period costs.

Additionally, Energy Marketing & Trading delivered higher adjusted operating profit as it continued to manage volatile market conditions well, and Upstream adjusted operating profit increased, reflecting Centrica Storage's Rough asset returning to gas storage operations in the second half of 2022.

More detail on specific business unit adjusted operating profit performance is provided in the Group Overview on pages 9-14.

Group finance charge and taxation

Finance costs
Net finance costs decreased to £36m (2022: £78m), largely due to an increase in interest income on cash balances reflecting higher UK interest rates, which was partially offset by an increase in interest costs on floating debt.

Taxation
Business performance taxation on profit decreased to £564m (2022: £571m). After taking account of tax on joint ventures and associates, the adjusted tax charge was £586m (2022: £581m).

The resultant adjusted effective tax rate for the Group was 28% (2022: 46%), reflecting the profit mix moving away from more highly-taxed E&P activities.

A provisional amount of Electricity Generator Levy of £180m is included in the Group's cost of sales and our share of the results of joint venture and associates operating profits. The Levy is not an income tax and is not deductible for corporation tax purposes (see note 3(a), 3(d) and 8 in the accounts). If this had been treated as a tax, the Group's adjusted effective tax rate would have been 34%.

The adjusted effective tax rate calculation is shown below:

Six months ended 30 June	**2023 £m**	2022 £m
Adjusted operating profit before impacts of taxation	**2,083**	1,342
Add: JV/associate taxation included in adjusted operating profit	**22**	10
Net finance cost	**(36)**	(78)
Adjusted profit before taxation	**2,069**	1,274
Taxation on profit	**(564)**	(571)
Share of JV/associate taxation	**(22)**	(10)
Adjusted tax charge	**(586)**	(581)
Adjusted effective tax rate (inc. JV)	**28%**	46%

Exceptional items and certain re-measurements

Total certain re-measurements and exceptional items included within Group operating profit generated a pre-tax profit of £4,379m (2022: loss of £2,441m), made up of a profit on certain re-measurements of £4,702m (2022: loss of £2,536m) and an exceptional loss of £323m (2022: profit of £95m).

Total certain re-measurements and exceptional items generated a tax credit of £1,617m (2022: £747m charge), with a credit of £1,620m (2022: £660m charge) related to certain re-measurements and a charge of £3m (2022: £87m) related to exceptional items.

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 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 profit of £4,702m (2022: loss of £2,536m) relating to re-measurements, comprising of:

- A net gain of £3,812m on the re-measurement of derivative energy contracts. This predominantly reflects the unwind of 2022 out-of-the-money energy supply contract hedge purchases, while there was also an unwind of Upstream and Energy Marketing & Trading out-of-the-money positions from December 2022. The net positive impact of these two factors was £3,220m. In addition, we saw a net unrealised mark-to-market gain of £592m from our wider portfolio as we were in a net sell position as commodity prices fell.
- A £891m release of the onerous energy supply contract provision. At the 2022 year-end, an onerous provision was held on the balance sheet relating to our non-domestic customers on longer-term fixed contracts agreed at levels below the forward commodity prices in December 2022. This was because, although the Group is predominantly hedged and so does not expect to make a true economic loss on these contracts, the hedges are generally market trades which are reflected as derivatives and are marked-to-market through the middle column as certain re-measurements. At 2022 year-end, the unrealised hedges were still in-the-money and this led to retaining an onerous contract provision. However, following the fall in commodity prices seen in the first half of 2023, the supply hedges were out-of-the-money as at the end of June 2023 and as a result, the remaining onerous provision has been fully released.
- There was also a £1m net loss arising on re-measurement of certain associates' contracts (net of taxation).

These re-measurements generated a taxation charge of £1,620m (2022: credit of £660m). As a result, the total gain from net re-measurements after taxation was £3,082m (2022: loss of £1,876m).

The Group recognises the realised gains and losses on commodity derivative and onerous supply contracts when the underlying transaction occurs. The business performance 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.

Further details can be found in note 6(a).

Exceptional items

An exceptional pre-tax charge of £323m was included within the statutory Group operating profit in the first half of 2023 (2022: £95m gain), made up of:

- A £312m impairment of the nuclear investment, as a result of lower forecast commodity prices, partially offset by the positive effect of life extensions at Heysham 1 and Hartlepool.
- An £11m impairment in Centrica Business Solutions predominantly related to a battery storage asset and a gas engine, also following the reduction in forecast commodity prices.

The taxation credit on exceptional items was £3m (2022: £87m) relating to the impairment in Centrica Business Solutions.

As a result, the total post-tax exceptional loss after taxation was £320m (2022: profit of £182m).

Further details on exceptional items, including on impairment accounting policy, process and sensitivities can be found in notes 6(b) and 6(c).

Group earnings

Adjusted earnings

Profit for the year from business performance after taxation was £1,483m (2022: £693m). After adjusting for non-controlling interests relating to Spirit Energy, adjusted earnings were £1,466m (2022: £643m). Excluding the disposed Spirit Energy assets, adjusted earnings were £1,466m (2022: £598m).

Adjusted basic EPS was 25.8p (2022: 11.0p, or 10.2p excluding the disposed Spirit Energy assets).

Statutory earnings

After including exceptional items and certain re-measurements, the statutory profit attributable to shareholders for the period was £4,150m (2022: loss of £864m).

The Group reported a statutory basic EPS profit of 73.0p (2022: loss of 14.7p).

Dividend

The proposed interim dividend is 1.33p per share (2022: 1.0p per share).

Group cash flow, net debt and balance sheet

Group cash flow

Free cash flow is the Group's primary measure of cash flow as management believe it provides relevant information to show the cash generation of the business after taking account of the need to maintain its capital asset base. Free cash flow is reconciled to statutory net cash flow from operating and investing activities in the table below. See the explanatory note in note 4(f) for further details.

Six months ended 30 June	**2023 £m**	2022 £m
Statutory cash flow from operating activities	**2,485**	165
Statutory cash flow from investing activities	**13**	(139)
Statutory cash flow from operating and investing activities	**2,498**	26
Add back/(deduct):		
Purchase of securities	**17**	1
Interest received	**(105)**	(8)
Movements in collateral and margin cash	**(1,113)**	519
Defined benefit pension deficit payments	**80**	105
Free cash flow	**1,377**	643

Net cash flow from operating activities increased to £2,485m (2022: £165m), with the impact of higher adjusted EBITDA and margin cash inflows partially offset by negative working capital movements.

We saw a £1,113m inflow of collateral and margin cash during the first half of 2023, as wholesale commodity prices reduced from their elevated levels last year.

Working capital was a net outflow of £360m (2022: £438m). This included a £1,555m outflow in British Gas Energy, reflecting settlement of elevated December 2022 commodity costs in January, and also the pass through to customers of £600m of Government support scheme payments which we received in December 2022. Partially offsetting this was a £765m working capital inflow in EM&T driven by the cash conversion of 2022 profits, and other net working capital inflows of £430m largely driven by lower debtor balances due to falling commodity prices in Centrica Business Solutions, the payable relating to the

Electricity Generator Levy in Nuclear and Centrica Storage's settlement of gas-in-store sales following return to storage operations in September 2022.

Net cash flow from investing activities increased to a £13m inflow (2022: £139m outflow), with a £97m increase in interest received and £60m dividends received from associates (2022: £nil).

Reflecting all this, Group total free cash flow was £1,377m (2022: £643m), as reconciled to statutory cash flow measures in the table above.

Net cash outflow from financing activities was lower at £531m (2022: £695m) with a reduced distribution of £17m (2022: £233m) to Spirit Energy's minority partner relating to the disposal of Spirit Energy's Norway assets, and £270m lower net repayment of borrowings in the first half of 2023, partially offset by a £340m outflow relating to the buyback of shares as part of the Group's share repurchase programme (2022: £nil).

Group adjusted net cash
The above resulted in a £1,967m increase in cash and cash equivalents over the period, accordingly the Group's adjusted net cash position as at 30 June 2023 was £3,061m, compared to £1,199m on 31 December 2022.

Further details on the Group's sources of finance and net cash are included in note 12.

Pension deficit
The Group's IAS19 net pension position reduced to a £20m surplus as at 30 June 2023, from a £40m surplus at 31 December 2022, with the impact of pension deficit contributions and an increase in the high quality corporate bond yields used to discount the pension liabilities being broadly offset by a reduction in the scheme asset values and an actuarial adjustment due to inflation experience.

Further details on post-retirement benefits are included in note 13.

Balance sheet
Net assets increased to £4,918m (31 December 2022: £1,280m), predominantly driven by the unwinding of large out-of-the-money derivatives positions largely related to our downstream energy purchases. As a result of derivative movements, we saw a reduction in the deferred tax asset to £274m (31 December 2022: £1,709m).

2023 acquisitions, disposals and disposal groups classified as held for sale

All acquisitions and disposals undertaken by the Group during the period were immaterial, both individually and in aggregate.

On 8 December 2021 the Group announced that it had agreed to sell Spirit Energy's entire Norwegian portfolio excluding the Statfjord fields to Sval Energi for a headline consideration of $1,026 million (£758 million), and the Statfjord fields to Equinor for a headline consideration of $50 million (£37 million). During the period to 30 June 2023, deferred consideration of £55 million was received, reflecting an increase in the gas price since the transactions were agreed.

Further details on assets purchased, acquisitions and disposals are included in notes 4(e) and 11.

Events after balance sheet date

Details of events after the balance sheet date are described in note 17.

Risks and capital management

The nature of the Group's principal risks and uncertainties are largely unchanged from those set out in its 2022 Annual Report. However, we have seen intensifying regulatory scrutiny, with the Group's top three Principal Risks now being Political, Legal and Regulatory risk, Credit & Liquidity Risk and Market Risk (including the outage risk of financial loss due to impact of lost asset production). This reflects current intense levels of scrutiny from regulators and governments, as well as the potential impacts of continued higher gas and electricity price and market volatility as we head towards the next winter period.

The Group has actively responded to these risks. Centrica's approach to risk management includes agile hedging policies and effective demand forecasting processes. The extent to which the Group may continue to be impacted by the consequences of the high level of commodity prices will, in part, depend on further government and regulatory policy, including setting of future levels of default tariff caps, levies on profits, consultations on energy supply margins and financial resilience, as well as any significant regulatory change in our trading businesses.

Details of how the Group has managed financial risks such as liquidity and credit risk are set out in note 19. Details of the Group's capital management processes are provided under sources of finance in note 12.

Accounting policies

The Group's accounting policies and specific accounting measures, including changes of accounting presentation and selected key sources of estimation uncertainty, are explained in notes 1, 2 and 3.

Appendix: Upstream performance metrics

Nuclear

Six months ended 30 June	**2023**	2022	Change
Nuclear power generated (GWh)	**3,648**	4,648	(22%)
Nuclear achieved power price (£/MWh)	**187**	110	70%

Spirit Energy

Six months ended 30 June	**2023**	2022	Change
Gas production volumes (mmth)			
Retained	**471**	514	(8%)
Disposed	**–**	178	nm
Total gas production volumes (mmth)	**471**	692	(32%)
Liquids production volumes (mmboe)			
Retained	**0.5**	0.7	(29%)
Disposed	**–**	3.5	nm
Total liquids production volumes (mmboe)	**0.5**	4.2	(88%)
Total production volumes (mmboe)			
Retained	**8.4**	9.3	(10%)
Disposed	**–**	6.3	nm
Total production volumes (mmboe)	**8.4**	15.6	(46%)
Average achieved gas sales prices (p/therm)			
Retained	**84.0**	74.8	12%
Disposed	**–**	191.0	nm
Total Average achieved gas sales prices (p/therm)	**84.0**	104.0	(19%)
Average achieved liquid sales prices (£/boe)			
Retained	**46.5**	44.0	6%
Disposed	**–**	64.0	nm
Total average achieved liquid sales prices (£/boe)	**46.5**	60.0	(23%)
Lifting and other cash production costs (£/boe) (i)			
Retained	**21.4**	20.1	6%
Disposed	**–**	16.7	nm
Total average lifting and other cash production costs (£/boe) (i)	**21.4**	18.7	14%
Gas and liquids realisations (£m) (ii)			
Retained	**427**	427	0%
Disposed	**–**	549	nm
Total Gas and liquids realisations (£m) (ii)	**427**	976	(56%)
Unit DDA rate (£/boe)			
Retained	**18.4**	20.0	(8%)
Disposed	**–**	0.0	nm
Average Unit DDA rate (£/boe)	**18.4**	12.0	53%

(i) Lifting and other cash production costs are total operating costs and cost of sales excluding depreciation and amortisation, dry hole costs, exploration costs and profit on disposal.

(ii) Realisations are total revenues from sales of gas and liquids including hedging and net of Spirit NTS costs.

Statement of Directors’ Responsibilities

The Directors are responsible for preparing the Interim Results for the six month period ended 30 June 2023 in accordance with applicable law, regulations and accounting standards. In preparing the condensed interim Financial Statements, the Directors are responsible for ensuring that they give a true and fair view of the state of affairs of the Group at the end of the period and the profit or loss of the Group for that period.

The Directors confirm that the condensed interim Financial Statements have been prepared in accordance with United Kingdom adopted International Accounting Standard 34, “Interim Financial Reporting”, and that the Interim Results includes a fair review of the information required by DTR 4.2.7 and DTR 4.2.8, namely:

- an indication of the important events that have occurred during the first six months and their impact on the condensed interim Financial Statements, and a description of the principal risks and uncertainties for the remaining six months of the financial year; and
- material related party transactions in the first six months of the year and any material changes in the related party transactions described in the last annual report.

A list of current Directors is maintained on the Centrica plc website which can be found at www.centrica.com.

On behalf of the Board on 26 July 2023

Chris O’Shea	**Russell O'Brien**
Group Chief Executive	**Group Chief Financial Officer**

Independent Review Report to Centrica plc

Conclusion

We have been engaged by the company to review the condensed set of financial statements in the half-yearly financial report for the six months ended 30 June 2023 which comprises the Group Income Statement, the Group Statement of Comprehensive Income, the Group Balance Sheet, the Group Statement of Changes in Equity, the Group Cash Flow Statement and related notes 1 to 20.

Based on our review, nothing has come to our attention that causes us to believe that the condensed set of financial statements in the half-yearly financial report for the six months ended 30 June 2023 is not prepared, in all material respects, in accordance with United Kingdom adopted International Accounting Standard 34 and the Disclosure Guidance and Transparency Rules of the United Kingdom's Financial Conduct Authority.

Basis for Conclusion

We conducted our review in accordance with International Standard on Review Engagements (UK) 2410 "Review of Interim Financial Information Performed by the Independent Auditor of the Entity" issued by the Financial Reporting Council for use in the United Kingdom (ISRE (UK) 2410). A review of interim financial information consists of making inquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with International Standards on Auditing (UK) and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

As disclosed in note 2, the annual financial statements of the group are prepared in accordance with United Kingdom adopted international accounting standards. The condensed set of financial statements included in this half-yearly financial report has been prepared in accordance with United Kingdom adopted International Accounting Standard 34, "Interim Financial Reporting".

Conclusion Relating to Going Concern

Based on our review procedures, which are less extensive than those performed in an audit as described in the Basis for Conclusion section of this report, nothing has come to our attention to suggest that the directors have inappropriately adopted the going concern basis of accounting or that the directors have identified material uncertainties relating to going concern that are not appropriately disclosed.

This conclusion is based on the review procedures performed in accordance with ISRE (UK) 2410, however future events or conditions may cause the entity to cease to continue as a going concern.

Responsibilities of the directors

The directors are responsible for preparing the half-yearly financial report in accordance with the Disclosure Guidance and Transparency Rules of the United Kingdom's Financial Conduct Authority.

In preparing the half-yearly financial report, 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 company or to cease operations, or have no realistic alternative but to do so.

Auditor's Responsibilities for the review of the financial information

In reviewing the half-yearly financial report, we are responsible for expressing to the group a conclusion on the condensed set of financial statements in the half-yearly financial report. Our Conclusion, including our Conclusions Relating to Going Concern, are based on procedures that are less extensive than audit procedures, as described in the Basis for Conclusion paragraph of this report.

Use of our report

This report is made solely to the company in accordance with ISRE (UK) 2410. Our work has been undertaken so that we might state to the company those matters we are required to state to it in an independent review 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, for our review work, for this report, or for the conclusions we have formed.

Deloitte LLP

Statutory Auditor

London, United Kingdom

26 July 2023

Group Income Statement

Six months ended 30 June	Notes	2023 Business performance £m	2023 Exceptional items and certain re-measurements £m	2023 Results for the period £m	2022 Business performance £m	2022 Exceptional items and certain re-measurements £m	2022 Results for the period £m
Group revenue	4,6	**20,486**	**(3,971)**	**16,515**	14,302	(3,987)	10,315
Cost of sales [(i)]	6	**(17,179)**	**12,077**	**(5,102)**	(12,039)	2,991	(9,048)
Re-measurement and settlement of derivative energy contracts	6	**—**	**(3,403)**	**(3,403)**	—	(1,541)	(1,541)
Gross profit/(loss)	4,6	**3,307**	**4,703**	**8,010**	2,263	(2,537)	(274)
Operating costs before exceptional items and credit losses on financial assets		**(983)**	**—**	**(983)**	(830)	—	(830)
Credit losses on financial assets	14	**(309)**	**—**	**(309)**	(140)	—	(140)
Exceptional items – (impairment)/write-back of power assets	6	**—**	**(323)**	**(323)**	—	424	424
Exceptional items - net loss on significant disposals	6	**—**	**—**	**—**	—	(329)	(329)
Operating costs		**(1,292)**	**(323)**	**(1,615)**	(970)	95	(875)
Share of profits/(losses) of joint ventures and associates, net of interest and taxation	5	**68**	**(1)**	**67**	49	1	50
Group operating profit/(loss)	4	**2,083**	**4,379**	**6,462**	1,342	(2,441)	(1,099)
Financing costs	7	**(143)**	**—**	**(143)**	(87)	—	(87)
Investment income	7	**107**	**—**	**107**	9	—	9
Net finance cost	7	**(36)**	**—**	**(36)**	(78)	—	(78)
Profit/(loss) before taxation		**2,047**	**4,379**	**6,426**	1,264	(2,441)	(1,177)
Taxation on profit/(loss)	6,8	**(564)**	**(1,617)**	**(2,181)**	(571)	747	176
Profit/(loss) for the period		**1,483**	**2,762**	**4,245**	693	(1,694)	(1,001)
Attributable to:							
Owners of the parent		**1,466**	**2,684**	**4,150**	643	(1,507)	(864)
Non-controlling interests		**17**	**78**	**95**	50	(187)	(137)

Earnings per ordinary share		**Pence**	Pence
Basic	9	**73.0**	(14.7)
Diluted	9	**72.0**	(14.7)
Dividend paid per ordinary share	10	**—**	—
Dividend proposed per ordinary share	10	**1.33**	1.00

(i) Cost of sales includes a £891 million credit (2022: £1,869 million charge) relating to a reversal of the onerous energy supply contract provision within the certain re-measurements column. See note 6.

The notes on pages 32 to 70 form part of these condensed interim Financial Statements.

Group Statement of Comprehensive Income

Six months ended 30 June	2023 £m	2022 £m
Profit/(loss) for the period	**4,245**	(1,001)
Other comprehensive income		
Items that will be or have been reclassified to the Group Income Statement:		
Impact of cash flow hedging (net of taxation)	**(15)**	(22)
Exchange differences on translation of foreign operations (i)	**(51)**	(62)
Exchange differences reclassified to Group Income Statement on disposal	**—**	274
Items that will not be reclassified to the Group Income Statement:		
Net actuarial (losses)/gains on defined benefit pension schemes (net of taxation)	**(89)**	497
Gains/(losses) on revaluation of equity instruments measured at fair value through other comprehensive income (net of taxation)	**3**	(1)
Share of other comprehensive loss of associates, net of taxation	**(44)**	(19)
Other comprehensive (loss)/income, net of taxation	**(196)**	667
Total comprehensive income/(loss) for the period	**4,049**	(334)
Attributable to:		
Owners of the parent	**3,955**	(197)
Non-controlling interests	**94**	(137)

(i) Exchange differences on translation of foreign operations includes £50 million (2022: £62 million) of losses attributable to the equity holders of the parent, and £1 million of losses (2022: £nil of losses) attributable to non-controlling interests.

The notes on pages 32 to 70 form part of these condensed interim Financial Statements.

Group Statement of Changes in Equity

	Share Capital £m	Share Premium £m	Retained Earnings £m	Other Equity £m	**Total £m**	Non-controlling Interests £m	**Total Equity £m**
1 January 2023	365	2,394	(466)	(1,276)	**1,017**	263	**1,280**
Profit for the period	—	—	4,150	—	**4,150**	95	**4,245**
Other comprehensive loss	—	—	—	(195)	**(195)**	(1)	**(196)**
Total comprehensive income/(loss)	—	—	4,150	(195)	**3,955**	94	**4,049**
Employee share schemes and other share transactions	—	—	—	19	**19**	—	**19**
Share buyback programme (note 3)	—	—	—	(300)	**(300)**	—	**(300)**
Dividends payable to equity holders (note 10)	—	—	(113)	—	**(113)**	—	**(113)**
Distributions to non-controlling interests	—	—	—	—	**—**	(17)	**(17)**
30 June 2023	**365**	**2,394**	**3,571**	**(1,752)**	**4,578**	**340**	**4,918**

	Share Capital £m	Share Premium £m	Retained Earnings £m	Other Equity £m	Total £m	Non-controlling Interests £m	Total Equity £m
1 January 2022	363	2,377	377	(752)	2,365	385	2,750
Loss for the period	—	—	(864)	—	(864)	(137)	(1,001)
Other comprehensive income	—	—	—	667	667	—	667
Total comprehensive (loss)/income	—	—	(864)	667	(197)	(137)	(334)
Employee share schemes and other share transactions	2	17	(2)	(17)	—	—	—
Distributions to non-controlling interests	—	—	—	—	—	(233)	(233)
30 June 2022	365	2,394	(489)	(102)	2,168	15	2,183

The notes on pages 32 to 70 form part of these condensed interim Financial Statements.

Group Balance Sheet

	Notes	30 June 2023 £m	31 December 2022 £m
Non-current assets			
Property, plant and equipment		**1,712**	1,748
Interests in joint ventures and associates		**1,211**	1,580
Other intangible assets	3	**418**	707
Goodwill		**404**	409
Deferred tax assets		**274**	1,709
Trade and other receivables, and contract-related assets	14	**120**	129
Derivative financial instruments	15	**967**	1,393
Retirement benefit assets	13	**146**	150
Securities	12, 15	**543**	525
		5,795	8,350
Current assets			
Trade and other receivables, and contract-related assets	14	**5,067**	8,450
Other intangible assets	3	**578**	—
Inventories		**706**	1,269
Derivative financial instruments	15	**3,109**	6,034
Current tax assets		**110**	93
Cash and cash equivalents	12	**7,039**	4,842
		16,609	20,688
Total assets		**22,404**	29,038
Current liabilities			
Derivative financial instruments	15	**(3,058)**	(8,841)
Trade and other payables, and contract-related liabilities		**(6,579)**	(10,176)
Current tax liabilities		**(554)**	(472)
Provisions for other liabilities and charges		**(242)**	(1,213)
Bank overdrafts, loans and other borrowings	12	**(1,320)**	(1,009)
		(11,753)	(21,711)
Non-current liabilities			
Deferred tax liabilities		**(245)**	(8)
Derivative financial instruments	15	**(708)**	(1,310)
Trade and other payables, and contract-related liabilities		**(360)**	(165)
Provisions for other liabilities and charges		**(1,320)**	(1,446)
Retirement benefit obligations	13	**(126)**	(110)
Bank loans and other borrowings	12	**(2,974)**	(3,008)
		(5,733)	(6,047)
Total liabilities		**(17,486)**	(27,758)
Net assets		**4,918**	1,280
Share capital		**365**	365
Share premium		**2,394**	2,394
Retained earnings		**3,571**	(466)
Other equity		**(1,752)**	(1,276)
Total shareholders' equity		**4,578**	1,017
Non-controlling interests		**340**	263
Total shareholders' equity and non-controlling interests		**4,918**	1,280

The notes on pages 32 to 70 form part of these condensed interim Financial Statements.

Group Cash Flow Statement

Six months ended 30 June	Notes	2023 £m	2022 £m
Group operating profit/(loss) including share of results of joint ventures and associates		**6,462**	(1,099)
Deduct share of profits of joint ventures and associates, net of interest and taxation	5	**(67)**	(50)
Group operating profit/(loss) before share of results of joint ventures and associates		**6,395**	(1,149)
Add back/(deduct):			
Depreciation and amortisation	4	**287**	367
Write-downs, impairments and write-backs	4,6	**325**	(424)
Loss on disposals		**—**	329
(Decrease)/increase in provisions		**(1,035)**	1,845
Cash contributions to defined benefit schemes in excess of service cost income statement charge		**(96)**	(85)
Employee share scheme costs		**15**	3
Unrealised (gains)/losses arising from re-measurement of energy contracts		**(3,074)**	1,224
Operating cash flows before movements in working capital relating to business performance and payments relating to taxes, exceptional charges and operating interest paid		**2,817**	2,110
Decrease/(increase) in inventories		**560**	(488)
Decrease in trade and other receivables and contract-related assets relating to business performance		**3,328**	155
Decrease in trade and other payables and contract-related liabilities relating to business performance		**(3,806)**	(1,222)
Operating cash flows before payments relating to taxes, exceptional charges and operating interest paid		**2,899**	555
Taxes paid		**(402)**	(367)
Operating interest paid	7	**(8)**	—
Payments relating to exceptional charges in operating costs	6	**(4)**	(23)
Net cash flow from operating activities		**2,485**	165
Purchase of businesses, net of cash acquired		**(5)**	(5)
Sale of businesses, including receipt of deferred consideration	11	**55**	82
Purchase of property, plant and equipment and intangible assets	4	**(176)**	(223)
Sale of property, plant and equipment and intangible assets		**—**	1
Investments in joint ventures and associates		**(9)**	(1)
Dividends received from joint ventures and associates		**60**	—
Interest received		**105**	8
Purchase of securities	12	**(17)**	(1)
Net cash flow from investing activities		**13**	(139)
Payments for own shares		**—**	(1)
Share buyback programme		**(340)**	—
Cash inflow from short-term borrowings	12	**886**	—
Distributions to non-controlling interests		**(17)**	(233)
Financing interest paid	12	**(108)**	(125)
Cash outflow from repayment of short-term borrowings and capital element of leases	12	**(952)**	(336)
Net cash flow from financing activities		**(531)**	(695)
Net increase/(decrease) in cash and cash equivalents		**1,967**	(669)
Cash and cash equivalents including overdrafts, and cash classified as held for sale at 1 January		**4,242**	4,328
Effect of foreign exchange rate changes	12	**(79)**	111
Cash and cash equivalents including overdrafts at 30 June	12	**6,130**	3,770
Included in the following line of the Group Balance Sheet:			
Cash and cash equivalents	12	**7,039**	4,093
Overdrafts included within current bank overdrafts, loans and other borrowings	12	**(909)**	(323)

The notes on pages 32 to 70 form part of these condensed interim Financial Statements.

Notes to the condensed interim Financial Statements

Notes to the condensed interim Financial Statements provide additional information required by statute, accounting standards or Listing Rules to explain a particular feature of the condensed interim Financial Statements. These condensed interim Financial Statements should be read in conjunction with the information that was released in the Group's consolidated Financial Statements for the year ended 31 December 2022.

1. 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 has its listing on the London Stock Exchange. The Company, together with its subsidiaries, comprise the 'Group'.

The condensed interim Financial Statements for the six months ended 30 June 2023 included in this announcement were authorised for issue in accordance with a resolution of the Board of Directors on 26 July 2023.

These condensed interim Financial Statements do not comprise statutory accounts within the meaning of Section 434 of the Companies Act 2006. Statutory accounts for the year ended 31 December 2022 were approved by the Board of Directors on 15 February 2023 and delivered to the Registrar of Companies. The report of the auditors on those accounts was unqualified and did not contain an emphasis of matter paragraph and did not contain any statement under Section 498 of the Companies Act 2006. The financial information contained in these condensed interim Financial Statements is unaudited. The Group Income Statement, Group Statement of Comprehensive Income, Group Statement of Changes in Equity, Group Cash Flow Statement for the interim period to 30 June 2023, the Group Balance Sheet as at 30 June 2023, and the related notes have been reviewed by the auditors and their report to the Company is set out on page 26.

2. Basis of preparation

These condensed interim Financial Statements for the six months ended 30 June 2023 have been prepared in accordance with the Disclosure and Transparency Rules of the Financial Conduct Authority and with IAS 34: 'Interim financial reporting', as adopted by the United Kingdom.

These condensed interim Financial Statements should be read in conjunction with the Group's consolidated Financial Statements for the year ended 31 December 2022, which were prepared in accordance with UK-adopted International Accounting Standards and, if relevant, with International Financial Reporting Standards as issued by the IASB and in conformity with the requirements of the Companies Act 2006. The Group's consolidated Financial Statements for the year ending 31 December 2023 will be prepared in accordance with the United Kingdom adopted International Financial Reporting Standards.

Preparation of interim financial statements requires management to make judgements, estimates and assumptions that affect the application of policies and reported amounts of assets and liabilities, income and expense. Actual amounts may differ from these estimates. In preparing these condensed interim Financial Statements, the significant judgements, estimates and assumptions made by management in applying the Group's accounting policies were consistent with those applied in the Group's consolidated Financial Statements for the year ended 31 December 2022, unless amended by the application of new accounting policies, standards or interpretations, or as a result of changes in estimation uncertainty or judgements as described in note 3.

Taxes on income in the interim period are accrued using tax rates that would be applicable to expected total annual earnings for each relevant source of income.

The Directors have, at the time of approving the financial statements, a reasonable expectation that the Company and Group have adequate resources to continue in operational existence for the foreseeable future, and have performed a going concern assessment at 30 June 2023 encompassing a period of more than twelve months from the date of approval of these accounts. Cash forecasts for the Group have been stress-tested for different scenarios including reasonably possible increases/decreases in commodity prices and the risk scenarios assessed in the going concern assessment, evaluating reasonably possible combinations of risks, the largest of which is the increased margin outflows in our trading and upstream businesses. Risks considered also include the impact of significant adverse weather events, increased bad debt charges due to the cost of living crisis, the risk of financial loss due to counterparty default and production falls in the Group's upstream business. The Group has established enhanced processes in the trading business and in respect of Upstream to plan for and manage possible increases in margin cash requirements. The level of undrawn committed bank facilities and available cash resources has enabled the Directors to conclude that there are no material uncertainties relating to going concern. As a result, the Group continues to adopt the going concern basis of accounting in preparing the financial statements. Further information on the Group's strong liquidity position, including its indebtedness and available committed facilities is provided in notes 12 and 19.

3. Accounting policies

This section details new accounting policies, standards, amendments and interpretations, whether these are effective in 2023 or later years, and if and how these are expected to impact the financial position and performance of the Group. In addition, this section sets out the Group's specific accounting measures applied in the preparation of the condensed interim Financial Statements.

The accounting policies applied in these condensed interim Financial Statements are consistent with those used in the preparation of the Group's consolidated Financial Statements for the year ended 31 December 2022, as described in those annual Financial Statements, with the exception of policies, standards, amendments and interpretations effective as of 1 January 2023 and other changes detailed below.

(a) New accounting policies, standards, amendments and interpretations effective or adopted in 2023

From 1 January 2023, the following standards and amendments are effective in the Group's consolidated Financial Statements:

- IFRS 17 'Insurance Contracts', and associated amendments;
- Amendment to IAS 1 'Presentation of Financial Statements' and IFRS Practice Statement 2, disclosure of accounting policies and materiality judgements;
- Amendment to IAS 8 'Accounting policies, Change in Accounting Estimates and Errors', definition of an accounting estimate; and
- Amendments to IAS 12 'Income Taxes', relating to the International Tax Reform Pillar Two Model Rules and separately, an amendment clarifying the accounting for deferred tax related to assets and liabilities arising from a single transaction.

These changes and other amendments effective during the year did not materially impact the Group's consolidated Financial Statements.

Electricity Generator Levy

At the end of 2022, the Government announced the implementation of the Electricity Generator Levy, a new, temporary levy applicable to receipts that the Group has realised from electricity generation in the UK from nuclear and renewable sources from 1 January 2023. It was legislated in the Finance (No 2) Act 2023. The levy is temporary and applies a 45% charge on receipts generated from the production of wholesale electricity sold at an average price in excess of £75/MWh, exceeding an annual threshold of £10 million. It applies to generators whose generation exceeds 50GWh annually, as well as off-take arrangements with significant minority shareholders in such generators (e.g. generation within our Nuclear associate and our off-take from that associate).

The Group has determined that the accounting for the levy falls within the scope of IAS 37 'Provisions, contingent liabilities, and contingent assets' and IFRIC 21 'Levies' on the basis that the levy represents a legislative liability imposed by the Government, calculated with reference to revenue generated. The Group recognises the levy progressively over time, as the related electricity is sold. See note 3(d) for further details.

Renewable certificates

The Group purchases both renewable certificates and carbon dioxide emissions allowances in order to comply with, and meet its obligations under a number of UK and EU renewable energy schemes. These items are initially recognised at cost within intangible assets and were previously presented as non-current on the basis that the Group had the ability and intention to utilise certificates over a period greater than twelve months. Recognising that there is divergence in industry practice, the Group has assessed the expected submission dates of certificates currently held. Where they are expected to be surrendered within a year of purchase they are presented as current assets, otherwise they are presented as non-current. At 30 June 2023 these amounted to £578 million and £41 million respectively.

IFRS 17 'Insurance Contracts'

IFRS 17 became effective on 1 January 2023. The Group currently has fixed-fee service contracts that it previously accounted for as insurance contracts under IFRS 4 'Insurance Contracts'. These contracts fall within the scope of IFRS 17 where the Group reflects an assessment of the risk associated with an individual customer in setting the price of the contract. The Group is applying the simplified 'Premium Allocation Approach' to its contracts on the basis that the coverage period of the Group's insurance contracts is not greater than one year. No material impact from the application of IFRS 17 has been recognised in the Group's consolidated Financial Statements.

(b) Standards and amendments that are issued but not yet applied by the Group

The following standards and amendments have been issued and will be applied to the Group in future periods, subject to UK endorsement:

- Amendments to IAS 1 'Presentation of Financial Statements', classification of liabilities as current or non-current;
- Amendments to IFRS 16 'Leases', lease liabilities in a sale and leaseback; effective from 1 January 2024; and
- Amendments to IAS 7 'Statement of Cash Flows' and IFRS 7 'Financial Instruments - Disclosures', disclosures in relation to supplier finance arrangements.

Management does not expect other issued but not effective amendments or standards, or standards not discussed above to have a material impact on the consolidated Financial Statements.

3. Accounting policies

(c) Centrica specific accounting measures

This section sets out the Group's specific accounting measures applied in the preparation of the condensed interim Financial Statements. These measures enable the users of the accounts to understand the Group's underlying and statutory business performance separately.

Use of adjusted performance measures

The Directors believe that reporting adjusted measures (revenue, margin, profit, earnings per share and cash flow) provides additional useful information on business performance and underlying trends. These measures are used for internal performance purposes, are not defined terms under IFRS and may not be comparable with similarly titled measures reported by other companies.

Management uses adjusted revenue, adjusted gross margin and adjusted operating profit to evaluate segment performance. They are defined as revenue/gross margin/operating profit before:

- exceptional items; and
- certain re-measurements.

Exceptional items and certain re-measurements are excluded because these items are considered by the Directors to distort the Group's underlying business performance. Similarly, for Segmental adjusted operating profit, the impact of the Group's profit share is excluded because management considers it unrelated to Segmental business performance.

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 9.

Free cash flow is used by management to assess the cash generating performance of each segment. Segmental free cash flow is defined as net cash flow from operating and investing activities before:

- deficit reduction payments made to the UK defined benefit pension schemes;
- movements in variation margin and collateral;
- interest received;
- sale, settlement and purchase of securities; and
- taxes paid and refunded.

Segmental free cash flow as assessed by management excludes cash flows relating to tax. This is because the effect of Group relief and similar reliefs could distort the measure of segment performance. As a Group-wide measure, free cash flow includes taxes paid and refunded.

Free cash flow gives a measure of the cash generation performance of the business after taking account of the need to maintain its capital asset base. By excluding deficit reduction payments and movements in variation margin and collateral, which are predominantly triggered by wider market factors and, in the case of collateral and margin movements, represent timing differences, free cash flow gives a measure of the underlying performance of the Group.

Interest received and cash flows from the sale, settlement and purchase of securities are excluded from free cash flow as these items are included in the Group's adjusted net cash/(debt) measure and are therefore viewed by the Directors as related to the manner in which the Group finances its operations.

Adjusted net cash/(debt) is used by management to assess the underlying indebtedness of the business. Adjusted net cash/(debt) is defined as cash and cash equivalents, net of bank overdrafts, borrowings, leases, interest accruals and related derivatives. This is adjusted for:

- securities; and
- sub-lease assets.

3. Accounting policies

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 contracts (and similar capacity or off-take arrangements), 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. Similarly, where our downstream customer supply contracts have become onerous as a result of significant market price movements (and the fact any associated commodity hedges have separately been recognised at fair value under IFRS 9 and therefore the onerous supply contract assessment must reflect the reversal of those gains in subsequent periods), movements in the required provision are also reflected as a certain re-measurement in the 'Cost of sales' line item and separately disclosed in note 6.

Movements in this provision do not reflect the underlying performance of the business because they are economically related to both the hedges and forecast future profitability of the supply contracts. 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 effects of these certain re-measurements and onerous contracts are presented within either revenue or cost of sales when recognised in business performance depending on the nature of the contract. They are 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 revenue in the business performance column of the Group Income Statement.

The Group's result for the period presents both realised and unrealised fair value movements on all derivative energy contracts within the 'Re-measurement and settlement of derivative energy contracts' line item. The Group's result for the period presents the unrealised onerous supply contract provision movements within the 'Cost of sales' line item.

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, debt repurchase costs, certain pension past service credits/costs, asset impairments/write-backs, the tax effects of these items and the effect of changes in UK upstream tax rates.

The Group distinguishes between business performance asset impairments/write-backs and exceptional impairments/write-backs on the basis of the underlying driver of the impairment, as well as the magnitude of the impairment. Drivers that are deemed to be outside of the control of the Group (e.g. commodity price changes) give rise to exceptional impairments. Additionally, impairment charges that are of a one-off nature (e.g. reserve downgrades or one-time change in intended use of an asset) and significant enough value to distort the underlying results of the business are considered to be exceptional. Other impairments that would be expected in the normal course of business, such as unsuccessful exploration activity (dry holes), are reflected in business performance.

3. Accounting policies

(d) Key sources of estimation uncertainty and critical accounting judgements

With the exception of the items noted below which have been updated during the reporting period, key areas of critical accounting judgement and estimation uncertainty that have the most significant effect on the consolidated Group Financial Statements remain as disclosed in note 3(a) and 3(b) of the Annual Report and Accounts for the year ended 31 December 2022.

Critical accounting judgements

Electricity Generator Levy

As detailed in note 3(a), the Electricity Generator Levy became effective on 1 January 2023 and is applicable to receipts that the Group has realised from electricity generation in the UK from nuclear and renewable sources.

The Group has determined that the accounting for the Levy falls within the scope of IAS 37 'Provisions, contingent liabilities and contingent assets' and is specifically subject to the requirements of IFRIC 21 'Levies' on the basis that the levy represents a legislative liability imposed by the Government. The Group recognises the levy as a cost of sale progressively over time, as the related electricity is sold. The Group also considered the applicability of IAS 12 'Income Taxes', however the Electricity Generator Levy is based on revenue generated, and not taxable profit and is therefore outside the scope of IAS 12. Whilst the legislation was substantively enacted on 20 June 2023 and received Royal Assent on 11 July 2023, there remain some uncertainties in how it should be interpreted in certain areas. It is currently expected to remain in effect until 31 March 2028.

During the period a provisional amount of £180 million has been reflected within cost of sales as a result of this levy. £nil is recorded within the share of profit after tax from the Nuclear associate (as the generator average price threshold of £75/MWh was not reached).

Share buyback programme

On 10 November 2022, the Group announced an intention to undertake a share buyback of £250 million and the Group entered into contracts with third parties to undertake this repurchase programme which has now completed. In 2023, the Group increased the share buyback by an additional £300 million which is expected to complete during the second half of the year. The Group judges that the terms and conditions of the contracts meant that, at the 30 June 2023, it was unable to cancel the remaining obligation. Accordingly, the Group has recorded a financial liability at 30 June 2023 of £167 million (31 December 2022: £207 million) for this remaining obligation, in accordance with IFRS 9: 'Financial Instruments'. This liability is included within the Other equity reserve.

The monthly breakdown of all shares purchased and the average price paid per share (excluding expenses) in relation to the financial liability of £207 million recognised at 31 December 2022 were as follows:

Period	Number of shares purchased under share buyback programme	Average price paid Pence	Total cost £m	Authorised purchases unutilised at month end £m
January 2023	44,926,039	95.4	43	164
February 2023	51,825,628	100.7	52	112
March 2023	108,017,252	103.7	112	—
Total	**204,768,919**	**101.1**	**207**	—

The monthly breakdown of all shares purchased and the average price paid per share (excluding expenses) in relation to the additional £300 million programme for the period ended 30 June 2023 were as follows:

Period	Number of shares purchased under share buyback programme	Average price paid Pence	Total cost £m	Authorised purchases unutilised at month end £m
April 2023	43,184,077	112.7	49	251
May 2023	29,309,742	116.5	34	217
June 2023	42,623,172	118.4	50	167
Total	**115,116,991**	**115.8**	**133**	**167**

Key sources of estimation uncertainty

Credit provisions for trade and other receivables

The macroeconomic environment continues to be challenging with high inflation, low growth projections and higher interest rates all contributing to cost-of-living pressures which may impact the ability of the Group's customers to pay amounts due. Leading debt indicators, including the number of customers going into debt and direct debit cancellation rates in the Group's residential portfolio have continued to deteriorate in 2023. The Group also suspended all debt recovery field activity during the first half of the year, and this has resulted in a deterioration of debt performance for affected cohorts of customers during the period. Customer support schemes, implemented by the Government in 2022 and benefiting gas and electricity customers, largely ended on 30 June 2023 and despite declining commodity prices during the period, prices are still significantly higher than in previous years.

These factors all result in the assessment and adequacy of credit provisions for trade and other receivables to continue to be a key source of estimation uncertainty.

The Group utilises a range of factors, including both internal and external, historic and forward-looking, to assess the adequacy of the Group's credit provisions. Whilst the Group utilises a matrix output model to record provision coverage, management recognises that the model does not adequately capture scenarios where there is a delayed impact on customer payments, such as the ending of Government support schemes, and forward-looking macroeconomic challenges. The Group has therefore recorded an additional macroeconomic credit provision of £212 million (31 December 2022: £125 million) which results in a total credit provision for trade and other receivables at 30 June 2023 of £1,127 million (31 December 2022: £872 million).

A detailed methodology for determining provisions for credit losses on trade and other receivables and the level of such provision, along with associated sensitivities, is set out in note 14.

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.

British Gas Energy and Centrica Business Solutions Onerous Supply Contracts

The Group operates and manages a hedging strategy to ensure that the future costs of supplying customers of the British Gas Energy and Centrica Business Solutions portfolios are appropriately managed.

Hedges are measured at fair value under IFRS 9 and are recognised as certain re-measurements in the Group's Income Statement until the point at which the related costs to purchase electricity and gas are incurred. Fair value movements on energy purchase contracts entered to meet the future needs of customers are economically related to customer demand; the supply contracts for which are measured on an accrual basis.

Gains and losses arising from hedges have been recognised in the income statement (within certain re-measurements) in accordance with the requirements of IFRS 9. Because of this hedge value recognition, the assessment of whether the supply contracts are onerous must include the contracted energy purchase costs and those mark-to-market reversals. As a result, the Group recognised an onerous supply contract provision of £999 million in the consolidated Group Financial Statements for the year ended 31 December 2022.

During the first half of 2023, commodity costs have declined and as a result, fair value movements on energy purchase contracts entered to meet the future needs of both British Gas Energy residential customers and the Group's non-domestic customers have resulted in losses rather than gains being recognised as certain re-measurements in the Group's Income Statement. As a result, the Group determined that at the reporting date, the future costs to fulfil both British Gas residential and the Group's non-domestic customer contracts fell below charges recoverable from customers and the onerous supply contract provision previously recognised in relation to the fulfilment of the Group's customer contracts has been reversed in full. £891 million of this reversal has been reflected in certain re-measurements, where it was originally recorded. The remainder, which was recognised on the balance sheet as part of the Avanti Gas acquisition in 2022, has been reversed in the business performance column to match the unwind of the related derivatives also acquired. Note that cumulatively, over time, the onerous contract provision certain re-measurements movement in the Group's Income Statement will total £nil.

The key sources of estimation uncertainty previously related to the expected future tenure of the Group's customer portfolio, and the estimated gross margin attributable to them. Due to the fair value losses recognised on energy purchase contracts at 30 June 2023, no onerous supply contract arises and the estimation of tenure and gross margin is no longer required. Therefore, there is no longer a key source of estimation uncertainty. If commodity prices increase, a further provision may be required in the future. Further disclosures relating to movements in certain re-measurements are provided in note 6.

Impairment of long-lived assets

The Group makes judgements in considering whether the carrying amounts of its long-lived assets (principally Upstream gas assets, Nuclear investment (20% economic interest accounted for as an investment in associate) and goodwill) or cash-generating units (CGUs) are recoverable and estimates their recoverable amounts.

Forward commodity prices have declined in the first half of 2023, both in terms of observable market prices and forecast forward prices. This follows significant year-on-year increases in both 2021 and 2022. Predominantly as a result of the declining prices the recoverable amounts of certain assets have been affected and an impairment of £323 million has been recorded. See note 6(b) for details.

Upstream gas assets

Forward prices for gas are a key input in the determination of the recoverable amount of the Group's gas assets (including storage asset). The first half of 2023 has seen declines in the prices of this commodity, both in terms of observable market prices and forecast forward prices. Despite this, impairment headroom remains for all significant fields at the period end. As at 30 June 2023, this remains a key source of estimation uncertainty due to potential future price decreases. As a sensitivity, were gas prices in the liquid period (2023-2027) to fall by 50% a post-tax impairment of £98 million would arise. Potential future price increases give rise to less estimation uncertainty, as the recoverable amounts of the Group's gas assets are capped at depreciated historic cost.

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 outages and the likely operational lives of the stations. During the period, the recoverable amount has decreased, predominantly due to falling forecast commodity prices, partially offset by the positive impact of life extensions at Heysham and Hartlepool stations. This has resulted in an impairment of £312 million (31 December 2022: impairment reversal of £195 million).

The key source of estimation uncertainty is commodity price forecasts; other input assumptions include production levels and station lives. Further details of these uncertainties, together with the methodology, assumptions and impairment booked during the period are provided in note 6, together with related sensitivities.

Decommissioning provisions

The estimated cost of decommissioning at the end of the producing lives of gas fields (including gas storage assets) 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 predominantly incurred by 2035.

The level of provision held is also sensitive to the discount rate used to discount the estimated decommissioning costs. During the period, the real discount rate used to discount the decommissioning liabilities at 30 June 2023 increased to 2% (31 December 2022: 1%). There are a number of variable inputs into the calculation of discount rates including risk-free interest rates and debt and equity risk premium. As a result of changes in yields on government gilts appropriate to the forecast profile of the decommissioning expenditure, it has been deemed appropriate to implement this increase in rates. A 1% increase in rates reduces the decommissioning liability by approximately £75 million. This is independent of any change in cost estimate.

4. Segmental analysis

The Group's reporting segments are those used internally by management to run the business and make decisions. The Group's segments are based on products and services as well as the major factors that influence the performance of these products and services across the geographical locations in which the Group operates.

(a) Segmental structure

The types of products and services from which each reportable segment derived its income during the period are detailed below. Income sources are reflected in Group revenue unless otherwise stated:

Segment	Description
British Gas Services & Solutions	(i) The installation, repair and maintenance of domestic central heating and related appliances, and the provision of fixed-fee maintenance/breakdown service and insurance contracts in the UK; and (ii) the supply of new technologies and energy efficiency solutions in the UK.
British Gas Energy	(i) The supply of gas and electricity to residential and small business customers in the UK.
Bord Gáis Energy	(i) The supply of gas and electricity to residential, commercial and industrial customers in the Republic of Ireland; (ii) the installation, repair and maintenance of domestic central heating and related appliances in the Republic of Ireland; and (iii) power generation in the Republic of Ireland [(i)].
Centrica Business Solutions	(i) The supply of gas and electricity to business customers in the UK [(i)]; and (ii) the supply of energy services and solutions to large organisations in all geographies in which the Group operates, and the development and operation of large-scale power assets in the UK.
Energy Marketing & Trading	(i) The procurement, trading and optimisation of energy in the UK and Europe [(i)]; and (ii) the global procurement and sale of LNG.
Upstream	(i) The production and processing of gas and liquids principally within Spirit Energy [(i)]; (ii) the sale of power generated from nuclear assets in the UK; and (iii) gas storage in the UK.

(i) Where income is generated from contracts in the scope of IFRS 9, this is included in re-measurement and settlement of derivative energy contracts.

4. Segmental analysis

(b) Revenue

Gross segment revenue includes revenue generated from the sale of products and services 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.

	2023			2022		
Six months ended 30 June	Gross segment revenue £m	Less inter-segment revenue £m	Group revenue £m	Gross segment revenue £m	Less inter-segment revenue £m	Group revenue £m
British Gas Services & Solutions	780	(27)	753	744	(22)	722
British Gas Energy	11,889	—	11,889	5,090	—	5,090
Bord Gáis Energy	1,037	—	1,037	784	—	784
Centrica Business Solutions	1,977	(3)	1,974	1,295	(11)	1,284
Energy Marketing & Trading	4,402	(290)	4,112	6,355	(113)	6,242
Upstream	1,606	(885)	721	1,695	(1,515)	180
Group revenue included in business performance	21,691	(1,205)	20,486	15,963	(1,661)	14,302
Less: revenue arising on contracts in scope of IFRS 9 included in business performance			(3,971)			(3,987)
Group Revenue			16,515			10,315

4. Segmental analysis

The tables below show 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. 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. The analysis of IFRS 15 revenue below reflects these factors.

	2023				
Six months ended 30 June	**Revenue from contracts with customers in scope of IFRS 15 (i)** £m	**Revenue from fixed-fee service and insurance contracts in scope of IFRS 17, and leasing contracts in scope of IFRS 16** £m	**Group revenue** £m	**Revenue in business performance arising from contracts in scope of IFRS 9 (i)** £m	**Group revenue included in business performance** £m
Energy services and solutions	**350**				
British Gas Services & Solutions	**350**	**403**	**753**	**—**	**753**
Energy supply- UK	**11,889**				
British Gas Energy	**11,889**	**—**	**11,889**	**—**	**11,889**
Energy supply- Republic of Ireland	**809**				
Bord Gáis Energy	**809**	**—**	**809**	**228**	**1,037**
Energy supply- UK	**1,200**				
Energy services	**107**				
Centrica Business Solutions	**1,307**	**3**	**1,310**	**664**	**1,974**
Energy sales to trading and energy procurement counterparties	**1,671**				
Energy Marketing & Trading	**1,671**	**13**	**1,684**	**2,428**	**4,112**
Gas and liquid production	**70**				
Upstream	**70**	**—**	**70**	**651**	**721**
	16,096	**419**	**16,515**	**3,971**	**20,486**

(i) The Group has recognised £3,729 million of revenue from the Government in relation to the Energy Price Guarantee scheme for domestic customers in the British Gas Energy segment. A further £449 million of revenue has been recognised in respect of the Energy Bill Relief Scheme. £319 million of this total relates to Centrica Business Solutions customers and £130 million relates to non-domestic customers in the British Gas Energy segment.

	2022				
Six months ended 30 June	Revenue from contracts with customers in scope of IFRS 15 £m	Revenue from fixed-fee service and insurance contracts in scope of IFRS 17, and leasing contracts in scope of IFRS 16 £m	Group revenue £m	Revenue in business performance arising from contracts in scope of IFRS 9 £m	Group revenue included in business performance £m
Energy services and solutions	293				
British Gas Services & Solutions	293	429	722	—	722
Energy supply- UK	5,090				
British Gas Energy	5,090	—	5,090	—	5,090
Energy supply- Republic of Ireland	571				
Bord Gáis Energy	571	—	571	213	784
Energy supply- UK	609				
Energy services	142				
Centrica Business Solutions	751	9	760	524	1,284
Energy sales to trading and energy procurement counterparties	2,777				
Energy Marketing & Trading	2,777	8	2,785	3,457	6,242
Gas and liquid production	387				
Upstream	387	—	387	(207)	180
	9,869	446	10,315	3,987	14,302

4. Segmental analysis

(c) Adjusted gross margin and adjusted operating profit

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.
This note also details adjusted gross margin. Both measures are reconciled to their statutory equivalents.

	Adjusted gross margin		Adjusted operating profit	
Six months ended 30 June	**2023 £m**	2022 £m	**2023 £m**	2022 £m
British Gas Services & Solutions	**287**	255	**20**	7
British Gas Energy [(i)]	**1,677**	551	**969**	98
Bord Gáis Energy	**46**	97	**(27)**	33
Centrica Business Solutions	**178**	113	**87**	20
Energy Marketing & Trading	**474**	337	**384**	278
Upstream	**647**	910	**654**	906
Segmental adjusted gross margin/adjusted operating profit	**3,309**	2,263	**2,087**	1,342
Reconciling items to Group Income Statement:				
Profit share [(ii)]	**(2)**	—	**(4)**	—
Total Group adjusted gross margin/adjusted operating profit	**3,307**	2,263	**2,083**	1,342
Certain re-measurements:				
Onerous energy supply contract provision movement	**891**	(1,869)	**891**	(1,869)
Derivative contracts	**3,812**	(668)	**3,812**	(668)
Share of re-measurement of certain associates' energy contracts (net of taxation)	**—**	—	**(1)**	1
Gross profit/(loss)	**8,010**	(274)		
Exceptional items in operating profit			**(323)**	95
Operating profit/(loss) after exceptional items and certain re-measurements			**6,462**	(1,099)

(i) Included within British Gas Energy adjusted operating profit is a £50 million charge related to expected future donations to the British Gas Energy Trust, supporting downstream customers.

(ii) The impact of the Group's profit share is excluded because management considers it unrelated to segmental business performance.

4. Segmental analysis

(d) Included within adjusted operating profit

Presented below are certain items included within adjusted operating profit, including a summary of impairments of property, plant and equipment and write-downs relating to exploration and evaluation assets.

	Depreciation and impairments of property, plant and equipment		Amortisation, write-downs and impairments of intangibles	
Six months ended 30 June	**2023 £m**	2022 £m	**2023 £m**	2022 £m
British Gas Services & Solutions	**(18)**	(15)	**(5)**	(7)
British Gas Energy	**(1)**	(1)	**(29)**	(40)
Bord Gáis Energy	**(4)**	(4)	**(6)**	(7)
Centrica Business Solutions	**(5)**	(6)	**(11)**	(13)
Energy Marketing & Trading	**(15)**	(15)	**(11)**	(5)
Upstream	**(160)**	(227)	**—**	—
Other [(i)]	**(14)**	(14)	**(10)**	(13)
	(217)	(282)	**(72)**	(85)

(i) The Other segment includes corporate functions, subsequently recharged.

Write-downs and impairments of intangible assets

During 2023, £2 million of other intangible assets were impaired within business performance (2022: £nil).

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		Capital expenditure on intangible assets other than goodwill	
Six months ended 30 June	**2023 £m**	2022 £m	**2023 £m**	2022 £m
British Gas Services & Solutions	**28**	25	**17**	13
British Gas Energy	**—**	—	**249**	112
Bord Gáis Energy	**29**	—	**4**	3
Centrica Business Solutions	**44**	22	**88**	43
Energy Marketing & Trading	**—**	—	**3**	8
Upstream	**52**	48	**12**	6
Other	**46**	6	**—**	—
Capital Expenditure	**199**	101	**373**	185
Capitalised borrowing costs	**(1)**	—	**—**	—
Inception of new leases and movements in payables and prepayments related to capital expenditure	**(46)**	(23)	**1**	1
Capital expenditure cash outflow subsequent to transfer to held for sale	**—**	109	**—**	10
Purchases of emissions allowances and renewable obligation certificates [(i)]	**—**	—	**(350)**	(160)
Net cash outflow	**152**	187	**24**	36

(i) Purchases of emissions allowances and renewable obligation certificates of £249 million (2022: £108 million) in British Gas Energy, £88 million (2022: £41 million) in Centrica Business Solutions, £12 million (2022: £6 million) in Upstream, and £1 million (2022: £5 million) in Energy Marketing & Trading.

4. Segmental analysis

(f) Free cash flow

Free cash flow is used by management to assess the cash generating performance of each segment, after taking account of the need to maintain its capital asset base. By excluding deficit reduction payments and movements in collateral and margin cash, which are predominantly triggered by wider market factors, and in the case of collateral and margin movements, represent timing movements, free cash flow is used by management as an adjusted measure of the cash generation of the business. Free cash flow excludes investing cash flows that are related to adjusted net debt/cash. This measure is reconciled to the net cash flow from operating and investing activities.

Six months ended 30 June	2023 £m	2022 £m
British Gas Services & Solutions	**(16)**	(54)
British Gas Energy (i)	**(556)**	(507)
Bord Gáis Energy	**(135)**	66
Centrica Business Solutions	**232**	124
Energy Marketing & Trading (ii)	**1,170**	218
Upstream (iii)	**1,090**	1,151
Other (iv)	**(6)**	12
Segmental free cash flow excluding tax	**1,779**	1,010
Taxes paid (i)	**(402)**	(367)
Total free cash flow	**1,377**	643
UK Pension deficit payments	**(80)**	(105)
Movements in variation margin and collateral (note 19)	**1,113**	(519)
Interest received	**105**	8
Purchase and settlement of securities	**(17)**	(1)
	2,498	26
Net cash flow from operating activities	**2,485**	165
Net cash flow used in investing activities	**13**	(139)
Total cash flow from operating and investing activities	**2,498**	26

(i) British Gas Energy free cash flow includes significant working capital outflows on settling December 2022 commodity costs.

(ii) Energy Marketing & Trading free cash flow includes conversion of 2022 profits to cash.

(iii) Upstream free cash flow in 2023 includes inflows of £55 million relating to deferred consideration received from the 2022 Spirit Norway disposal, and realised hedge cash outflows of £29 million (2022: £89 million) have been incurred relating to the Norwegian assets, but were held outside the disposal groups. £650 million of free cash flow excluding tax in 2022 relates to the Norwegian disposal groups, including its disposal cash flows. £286 million of taxes paid in 2022 relate to the Norway disposal group.

(iv) The Other segment includes corporate functions.

5. 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. 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%.

Share of results of joint ventures and associates

The Group's share of results of joint ventures and associates principally arises from its interest in Nuclear – Lake Acquisitions Limited, an associate, reported in the Upstream segment.

	2023			2022		
Six months ended 30 June	Share of business performance £m	Share of exceptional items and certain re-measurements £m	Share of results for the period £m	Share of business performance £m	Share of exceptional items and certain re-measurements £m	Share of results for the period £m
Income	265	—	265	286	—	286
Expenses before exceptional items and certain re-measurements	(175)	—	(175)	(226)	—	(226)
Exceptional items and re-measurement of certain contracts	—	(1)	(1)	—	1	1
Operating profit/(loss)	90	(1)	89	60	1	61
Financing costs	—	—	—	(1)	—	(1)
Taxation on profit/(loss)	(22)	—	(22)	(10)	—	(10)
Share of post-taxation results of joint ventures and associates	68	(1)	67	49	1	50

6. Exceptional items and certain re-measurements

(a) 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.

If the future costs to fulfil customer supply contracts, including the mark-to-market reversal of any energy hedging contracts entered into to meet this demand, exceed the charges recoverable from customers, an onerous contract provision will be recognised. If this position reverses, any onerous contract provision is also reversed. Because the associated hedging gains or losses, whilst either unrealised or arising on delivery, will be recognised in certain re-measurements, the movements in the onerous provision will also be recognised in certain re-measurements.

Six months ended 30 June	2023 £m	2022 £m
Certain re-measurements recognised in relation to energy contracts:		
Net gains/(losses) arising on delivery of contracts	3,220	(1,658)
Net gains arising on market price movements and new contracts	592	990
Net re-measurements included within gross profit before onerous supply contract provision	3,812	(668)
Onerous energy supply contract provision movement [(i)]	891	(1,869)
Net re-measurements included within gross profit	4,703	(2,537)
Net (loss)/gain arising on re-measurement of certain associates' contracts (net of taxation)	(1)	1
Net re-measurements included within Group operating profit	4,702	(2,536)
Taxation on certain re-measurements (note 8) [(ii)]	(1,620)	660
Certain re-measurements after taxation	3,082	(1,876)

(i) The onerous supply contract provision is based on the future costs to fulfil customer contracts on a current market price basis. During the period, this provision has been fully reversed. The associated hedging gains or losses are separately recognised within the gains/losses arising on market price movements and new contracts.

(ii) Taxation on onerous energy supply contract provision movement amounted to a £223 million charge (2022: £355 million credit) and taxation on other certain re-measurements amounted to a £1,397 million charge (2022: £305 million credit).

Six months ended 30 June	2023 £m	2022 £m
Total re-measurement and settlement of derivative energy contracts excluding:	(3,403)	(1,541)
IFRS 9 business performance revenue	(3,971)	(3,987)
IFRS 9 business performance cost of sales	11,186	4,860
Unrealised certain re-measurements recognised in relation to energy contracts included in gross profit	3,812	(668)
Onerous contract provision movement (cost of sales)	891	(1,869)
Total certain re-measurements	4,703	(2,537)

The table below reflects the certain re-measurement derivative movements by business segment:

Six months ended 30 June	2023 £m	2022 £m
UK Energy Supply (British Gas Energy and Centrica Business Solutions)	1,512	2,731
Upstream/Energy Marketing & Trading/Bord Gáis	2,300	(3,399)
Unrealised certain re-measurements recognised in relation to energy contracts included in gross profit	3,812	(668)

6. Exceptional items and certain re-measurements

(b) Exceptional items

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, pension change costs or credits, significant debt repurchase costs and asset write-downs/impairments and write-backs.

Six months ended 30 June	2023 £m	2022 £m
Loss on disposal of E&P Norway	—	(329)
(Impairment)/write back of power assets [(i)]	(323)	424
Exceptional items included within Group operating profit	(323)	95
Net exceptional item taxation (note 8)	3	87
Total exceptional items recognised after taxation	(320)	182

(i) In the Upstream segment, an impairment of the Nuclear investment of £312 million (post-tax £312 million) has been recorded predominantly as a result of the decrease in forecast commodity prices (offset by the positive effect of life extensions at Heysham and Hartlepool). In the Centrica Business Solutions segment, an impairment of £11 million (post-tax £8 million) has been recorded, predominantly related to a battery storage asset and a gas engine, also following lower forecast commodity prices. See note 6(c) for further details and sensitivities associated with the Nuclear investment.

6. Exceptional items and certain re-measurements

(c) Impairment accounting policy, process and sensitivities

The information provided below relates to the assets and CGUs (or groups of CGUs) that have been subject to impairment during the period.

Exceptional impairment assessments of assets measured on a Value-in-use (VIU) basis

Segment	Asset/CGU	Basis for impairment	Recoverable amount £m	Impairment £m
Upstream	Nuclear	The decrease in short-term baseload power prices has more than offset the impact of life extensions at Heysham 1 and Hartlepool stations	1,209	312

Nuclear

A VIU calculation has been used to determine the recoverable amount of the Group's investment in Nuclear. The cash flows incorporated in the valuation are based on detailed business forecasts in the short term, extrapolated to future years to account for the expected generation profile of the fleet for its remaining life. Assumptions include forward commodity prices, capacity rates, fuel and network costs, and operating and capital expenditure requirements. Price assumptions are based on liquid market prices for mid-2023 to mid-2027 which are then blended over a one-year period to long-term price forecasts. Long-term price assumptions derived from third-party market comparator median curves are used due to alignment with pricing that a reasonable market participant would use.

The Electricity Generator Levy, applying a 45% tax rate to revenues generated over £75/MWh until 31 March 2028, based on the above price assumptions, has also been included in the assessment.

In March 2023, the Nuclear business announced that estimated operating lifetimes at the Heysham 1 and Hartlepool stations would be extended by two years to March 2026, with a range of plus or minus one year. The lifetime extensions increased the value of the Group's investment in Nuclear by £242 million. The plus/minus one year range would impact value by an increase of £83 million or a decrease of £109 million.

The VIU calculation assumes that the Sizewell station operates until 2055, reflecting a 20-year extension beyond its original design life. In the absence of this extension, the carrying value of the Group's investment in Nuclear would be reduced by £140 million. All other stations' life assumptions are aligned to lifetime closure dates announced by the operator (being between March 2026 and March 2028).

The VIU calculation is also sensitive to changes in outage assumptions, and the base level generation volumes assumed for the fleet were decreased during the period based on a review of planned and unplanned outages. A reduction of 5% in the unplanned outage rate applied to volumes across the nuclear fleet would lead to a write-back movement of £130 million.

The future pre-tax cash flows generated by the investment in the associate are discounted using a pre-tax nominal discount rate of 21.7% (2022: 24.8%). This equated to a post-tax rate of 8.0% (2022: 8.0%). The post-tax discount rate is initially derived from the Group weighted average cost of capital as adjusted for the risks associated with the asset and with reference to comparator companies. The pre-tax rate is then back-calculated by removing tax cash flows and assessing the rate that would give the same result as the post-tax rate. As baseload power prices for the liquid period remain higher than longer term forecast prices, the near-term cash flows are elevated, which causes the pre-tax discount rate to remain high. A 2% increase in the post-tax discount rate would lead to an impairment of £88 million (when compared with the closing period-end carrying value). Similarly, a 2% reduction in the post-tax discount rate would lead to a write-back of £116 million.

The asset is particularly sensitive to changes in commodity price and the table below details average prices for the first 5- and 10-year periods and associated sensitivities. Note that the asset is valued for its entire economic life and not just this 15-year period.

	Five-year liquid and blended-period price (i)		Ten-year long-term average price (i)		Change in pre/post-tax write-back/(impairment) (ii)			
					+10%		-10%	
	2023-2027	2023-2027	2028-2037	2028-2037				
	30 June 2023	31 December 2022	**30 June 2023**	31 December 2022	**30 June 2023**	31 December 2022	**30 June 2023**	31 December 2022
	£/MWh	**£/MWh**	**£/MWh**	**£/MWh**	**£m**	£m	**£m**	£m
Baseload power	**92**	150	**58**	63	**163**	198	**(162)**	(198)
							-50% Five-year liquid and blended-period only	
							(398)	

(i) Prices are shown in 2022 real terms.

(ii) A 10% change was historically deemed to represent a reasonably possible variation across the entire period covered by the liquid market and comparator curves used in the nuclear impairment test. Given the volatility in commodity prices during recent years, a further sensitivity has been included based on a 50% fall in liquid and blend-period commodity prices only.

7. 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 from the discounting of decommissioning provisions and pensions. An element of financing cost is capitalised on qualifying projects.
Investment income predominantly includes interest received from short-term investments in money market funds, bank deposits and government bonds.

	2023			2022		
Six months ended 30 June	Financing costs £m	Investment income £m	Total £m	Financing costs £m	Investment income £m	Total £m
Cost of servicing net debt:						
Interest income	—	107	107	—	8	8
Interest cost on bonds, bank loans and overdrafts	(127)	—	(127)	(84)	—	(84)
Interest cost on lease liabilities	(5)	—	(5)	(2)	—	(2)
	(132)	107	(25)	(86)	8	(78)
Net gains/(losses) on revaluation	1	—	1	(5)	—	(5)
Notional interest arising from discounting	(4)	—	(4)	—	1	1
	(135)	107	(28)	(91)	9	(82)
Other interest charges (i)	(9)	—	(9)	—	—	—
Capitalised borrowing costs (ii)	1	—	1	4	—	4
Financing (cost)/income (iii)	(143)	107	(36)	(87)	9	(78)

(i) Other interest charges includes interest charged on cash collateral and fees for letters of credit. The cash flow associated is £8 million.

(ii) Borrowing costs have been capitalised using an average rate of 7.74% (2022: 5.13%).

(iii) Investment income has increased significantly during 2023, and as a result we have amended our Group Income Statement presentation to disclose investment income and financing costs separately.

8. Taxation

The taxation note details the different tax charges arising in the Group. This tax charge excludes the Group's share of taxation on the results of joint ventures and associates.
The tax charge for the period has been calculated based on an estimate of the annual effective tax rate expected for the full financial year applied to the interim pre-tax accounting profits for each relevant source of income.

Analysis of tax charge

Six months ended 30 June	2023 Business performance £m	2023 Exceptional items and certain re-measurements [ii] £m	2023 Results for the period £m	2022 Business performance £m	2022 Exceptional items and certain re-measurements £m	2022 Results for the period £m
The taxation (charge)/credit comprises						
UK corporation tax	(498)	(1,259)	(1,757)	(99)	782	683
UK energy profits levy	(27)	(346)	(373)	—	—	—
UK petroleum revenue tax	—	—	—	(1)	(20)	(21)
Non-UK tax	(39)	(12)	(51)	(471)	(15)	(486)
Total taxation on profit/(loss) [i]	(564)	(1,617)	(2,181)	(571)	747	176

(i) Total taxation on profit/(loss) excludes taxation on the Group's share of profits of joint ventures and associates.
(ii) Exceptional item and certain re-measurement movements predominantly relate to deferred tax.

The Group's adjusted effective tax rate for the six months ended 30 June 2023 was 28% (2022: 46%). This is reconciled to this note in the Group Financial Review on page 19.

There was no material movement in the Group's uncertain tax provision during the period (2022: £15 million).

The UK corporation tax rate reflects the impact of Energy Profits Levy ('EPL') of £373 million (2022: £nil) on the Group's ring fence profits from gas production taxed at a rate of 40%, plus EPL of 35% from 1 January 2023 to give an overall tax rate of 75%. There was no charge to EPL in 2022 interim results as the legislation introducing the EPL had not been enacted by 30 June 2022. Other activities in the UK are subject to the standard rate of UK corporation tax which was 19% up to 31 March 2023 and 25% from 1 April 2023 onwards (2022: 19%).

The main non-UK rates of corporation tax are 12.5% (2022: 12.5%) in Ireland and 22% (2022: 22%) in Denmark.

The Finance (No 2) Act 2023, which includes the legislation implementing the Electricity Generator Levy ('EGL') was substantively enacted on 20 June 2023 and received Royal Assent on 11 July 2023. The EGL is a temporary levy applicable to the revenues generated from renewable and nuclear sources. The EGL is charged at 45% on the Group's revenues from wholesale sales of electricity from renewable and nuclear generation, determined by reference to revenue from sales exceeding a benchmark price of £75/MWh. It is a wholly new type of levy and there remains some uncertainty over how the provisions are to be applied.

The EGL, which is not an income tax, is included in the Group's cost of sales and our share of the results of joint ventures and associates operating profits, but is not deductible for corporation tax purposes, see notes 3(a) and 3(d).The EGL amount for the six months ended 30 June 2023 is provisional based on the revenues arising in the period to date, and the annual EGL impact will be updated once the full-year results are known.

The legislation implementing the Organisation for Economic Co-operation and Development's ('OECD') proposals for a global minimum corporation tax rate ('Pillar 2') was substantively enacted into UK law on 20 June 2023. The rules have effect from 1 January 2024 and therefore the rules do not impact the Group's results to 30 June 2023.

In Ireland and Denmark, proposals for implementing the Pillar 2 rules are expected to be enacted by 31 December 2023.

We have applied the mandatory exception to recognising and disclosing information about the deferred tax assets and liabilities related to Pillar 2 income taxes in the UK in accordance with the amendments to IAS 12 published by the IASB on 23 May 2023.

The Group does not expect its tax liabilities to be materially increased as a result of the implementation of the Pillar 2 rules. The Group is currently assessing their detailed impact.

9. 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 period divided by the weighted average number of shares in issue during the period. 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 period of £4,150 million (2022: loss of £864 million) by the weighted average number of ordinary shares in issue during the period of 5,686 million (2022: 5,868 million). The number of shares excludes 222 million ordinary shares (2022: 26 million), being the weighted average number of the Company's own shares held in the employee share trust and treasury shares repurchased during the period by the Group as part of the share buyback 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 3.

Information presented for diluted and adjusted diluted earnings per ordinary share uses the weighted average number of shares as adjusted for 81 million (2022: 25 million) potentially dilutive ordinary shares as the denominator, unless it has the effect of increasing the profit or decreasing the loss attributable to each share.

Basic to adjusted basic earnings per share reconciliation

	2023		2022	
Six months ended 30 June	£m	Pence per ordinary share	£m	Pence per ordinary share
Earnings – basic	4,150	73.0	(864)	(14.7)
Net exceptional items after taxation (notes 3 and 6) (i)	320	5.6	(166)	(2.8)
Certain re-measurement losses after taxation (notes 3 and 6) (i)	(3,004)	(52.8)	1,673	28.5
Earnings – adjusted basic	1,466	25.8	643	11.0
Earnings – diluted (ii)	4,150	72.0	(864)	(14.7)
Earnings – adjusted diluted (ii)	1,466	25.4	643	10.9

(i) Net exceptional items after taxation and certain re-measurement losses after taxation are adjusted to reflect the share attributable to non-controlling interests.

(ii) Potential ordinary shares are not treated as dilutive when they would decrease a loss per share.

10. Dividends

Dividends represent the return of profits to shareholders. 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.

No dividends were paid during the period to 30 June 2023 (30 June 2022: £nil). The 2022 final dividend of 2.00 pence per ordinary share was approved at the Annual General Meeting, and was paid on 20 July 2023 to shareholders on the register on 9 June 2023. An accrual of £113 million was held on balance sheet at 30 June 2023 for this liability.

The Directors propose an interim dividend of 1.33 pence per ordinary share (totalling £74 million) for the six months ended 30 June 2023. The dividend will be paid on 16 November 2023 to those shareholders registered on 6 October 2023.

11. Acquisitions, disposals and disposal groups classified as held for sale

This section details business combinations, asset acquisitions and disposals made by the Group.

During the period there have been no material acquisitions or disposals either individually or in aggregate. There have been no material updates to the fair value of assets and liabilities recognised for businesses acquired in 2022.

During the period deferred consideration of £55 million was received in respect of the Spirit Norway disposal in 2022.

12. Sources of finance

(a) Capital structure

The Group seeks to maintain an efficient capital structure with a balance of adjusted net cash and equity as shown in the table below:

	30 June 2023 £m	31 December 2022 £m
Adjusted net cash	**(3,061)**	(1,199)
Shareholders’ equity	**4,578**	1,017
Capital	**1,517**	(182)

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. Borrowing is limited to the higher of £10 billion and a gearing ratio of three times Shareholders' equity. 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 commercial paper or short-term bank borrowings. 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 to hold a minimum capital amount under PRA regulations and has complied with this requirement since its inception. BGIL’s capital management policy and plan are 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.

12. Sources of finance

(b) Adjusted net cash/(debt) summary

Adjusted net cash/(debt) predominantly includes capital market borrowings offset by cash, 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, leases and interest accruals columns shown below are the assets and liabilities that give rise to financing cash flows.

				Other assets and liabilities			
	Current and non-current borrowings, leases and interest accruals £m	Derivatives £m	Gross debt £m	Cash and cash equivalents, net of bank overdrafts (i) (ii) £m	Current and non-current securities (iii) £m	Sub-lease assets £m	Adjusted net cash/ (debt) £m
Group adjusted net (debt)/cash at 1 January 2023	(3,417)	(153)	(3,570)	4,242	525	2	1,199
Acquisition of business (iv)	(12)	—	(12)	—	—	—	(12)
Cash outflow from purchase of securities	—	—	—	(17)	17	—	—
Cash outflow for payment of capital element of leases	46	—	46	(46)	—	—	—
Cash outflow for repayment of short-term borrowings (v)	906	—	906	(906)	—	—	—
Net cash inflow from short-term borrowings (v)	(886)	—	(886)	886	—	—	—
Remaining cash inflow (vi)	—	—	—	2,149	—	—	2,149
Revaluation/interest receivable on securities	39	(76)	(37)	—	11	—	(26)
Interest received on securities	—	—	—	9	(9)	—	—
Financing interest paid	57	21	78	(108)	—	—	(30)
Increase in interest payable and amortisation of borrowings	(90)	(21)	(111)	—	—	—	(111)
New lease agreements and re-measurement of existing lease liabilities	(88)	—	(88)	—	—	—	(88)
Exchange adjustments	60	—	60	(79)	(1)	—	(20)
Group adjusted net (debt)/cash at 30 June 2023	**(3,385)**	**(229)**	**(3,614)**	**6,130**	**543**	**2**	**3,061**

				Other assets and liabilities			
	Current and non-current borrowings, leases and interest accruals £m	Derivatives £m	Gross debt £m	Cash and cash equivalents, net of bank overdrafts (i) (ii) £m	Current and non-current securities (iii) £m	Sub-lease assets £m	Adjusted net cash/ (debt) £m
Group adjusted net (debt)/cash at 1 January 2022	(3,899)	93	(3,806)	4,328	156	2	680
Disposal of business	6	—	6	(30)	(21)	—	(45)
Net cash outflow from purchase of securities	—	—	—	(1)	1	—	—
Cash outflow for payment of capital element of leases	54	—	54	(54)	—	—	—
Cash outflow for repayment of borrowings (v)	282	—	282	(282)	—	—	—
Remaining cash outflow (vi)	—	—	—	(177)	—	—	(177)
Revaluation	135	(177)	(42)	—	(13)	—	(55)
Financing interest paid	72	33	105	(125)	—	—	(20)
Interest payable and amortisation of borrowings	(84)	—	(84)	—	—	—	(84)
New lease agreements and re-measurement of existing lease liabilities	(10)	—	(10)	—	—	—	(10)
Exchange adjustments	(85)	—	(85)	111	1	—	27
Group adjusted net (debt)/cash at 30 June 2022	**(3,529)**	**(51)**	**(3,580)**	**3,770**	**124**	**2**	**316**

(i) Cash and cash equivalents includes £198 million (2022: £377 million) of restricted cash, of which £83 million relates to cash received from the Energy Bill Support Scheme. Restricted cash also includes cash totalling £3 million (2022: £5 million) within the Spirit Energy business that is not restricted by regulation but is managed by Spirit Energy's own treasury department.

(ii) Cash and cash equivalents are net of £909 million bank overdrafts (2022: £323 million).

(iii) Securities balances includes £405 million of loans (including interest accrued) to the pension schemes, measured at amortised cost, £71 million (2022: £72 million) of other debt instruments and £67 million (2022: £52 million) of other equity instruments, both measured at fair value. See note 13 for further details on pension loans provided.

(iv) Acquisition of business relates to the recognition of an external loan due to the step-up of the investment in Greener Ideas Limited from joint venture to subsidiary during the period.

(v) Repayment of borrowings comprises the repayment of short-term borrowing obtained during December 2022, as well as repayment of commercial paper taken out during the period. Bond repayment in 2022 comprises £36 million repayment of a 3.68% HKD bond repaid on 22 February 2022, and £246 million repayment of a 6.375% GBP bond repaid on 10 March 2022.

(vi) Remaining cash inflow includes operating cash inflows of £2,485 million (2022: £165 million), other investing cash inflows of £21 million (2022: £109 million outflows). Also included are other financing cash outflows of £17 million (2022: £233 million) of distributions to non-controlling interests, and £340 million (2022: £nil) related to the share buyback programme. There is a liability of £167 million recognised at 30 June 2023 related to this programme.

12. Sources of finance

(c) Borrowings, leases and interest accruals summary

	Coupon rate %	Principal m	30 June 2023 Current £m	30 June 2023 Non-current £m	30 June 2023 Total £m	31 December 2022 Current £m	31 December 2022 Non-current £m	31 December 2022 Total £m
Bank overdrafts			(909)	—	(909)	(600)	—	(600)
Bank loans (> 5 year maturity)			—	(128)	(128)	—	(143)	(143)
Other borrowings			—	(12)	(12)	(20)	—	(20)
Bonds (by maturity date):								
16 October 2023 (i)	4.000	US$302	(234)	—	(234)	(246)	—	(246)
4 September 2026 (i)	6.400	£52	—	(47)	(47)	—	(49)	(49)
16 April 2027	5.900	US$70	—	(55)	(55)	—	(58)	(58)
13 March 2029 (i)	4.375	£552	—	(454)	(454)	—	(471)	(471)
5 January 2032 (ii)	Zero	€ 50	—	(69)	(69)	—	(69)	(69)
19 September 2033 (i)	7.000	£770	—	(671)	(671)	—	(684)	(684)
16 October 2043	5.375	US$367	—	(284)	(284)	—	(299)	(299)
12 September 2044	4.250	£550	—	(539)	(539)	—	(539)	(539)
25 September 2045	5.250	US$50	—	(39)	(39)	—	(41)	(41)
10 April 2075 (i) (iii)	5.250	£450	—	(410)	(410)	—	(418)	(418)
			(234)	(2,568)	(2,802)	(246)	(2,628)	(2,874)
Obligations under lease arrangements			(95)	(266)	(361)	(88)	(237)	(325)
Interest accruals			(82)	—	(82)	(55)	—	(55)
			(1,320)	(2,974)	(4,294)	(1,009)	(3,008)	(4,017)

(i) Bonds or portions of bonds maturing in 2023, 2026, 2029, 2033 and 2075 have been designated in a fair value hedge relationship.

(ii) €50 million of zero coupon notes have an accrual yield of 4.2%, which will result in a €114 million repayment on maturity.

(iii) The Group has the right to repay at par on 10 April 2025 and every interest payment date thereafter.

13. 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
Centrica Engineers Pension Scheme	Defined benefit final salary pension	Closed to new members in 2006	UK
	Defined benefit career average pension	Closed to new members in 2022	UK
Centrica Pension Plan	Defined benefit final salary pension	Closed to new members in 2003	UK
Centrica Pension Scheme	Defined benefit final salary pension	Closed to new members in 2003	UK
	Defined benefit career average pension	Closed to new members in 2008	UK
	Defined contribution pension	Open to new members	UK
Bord Gáis Energy Company Defined Benefit Pension Scheme	Defined benefit final salary pension	Closed to new members in 2014	Republic of Ireland
Bord Gáis Energy Company Defined Contribution Pension Plan	Defined contribution pension	Open to new members	Republic of Ireland

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 agreed and finalised with the Pension Trustees were carried out at the following dates: the Registered Pension Schemes at 31 March 2021 and the Bord Gáis Energy Company Defined Benefit Pension Scheme at 1 January 2020. These valuations have been updated to 30 June 2023 for the purpose of meeting the requirements of IAS 19. Investments held in all schemes have been valued for this purpose at market value.

The technical provisions deficit (funding basis) for the Registered Pension Schemes was £944 million at the date of the last agreed actuarial valuation as at 31 March 2021. The Group remains committed to additional annual cash contributions to fund this pension deficit. The overall deficit contributions, including the previously disclosed asset-backed contribution arrangements, totalled £175 million in 2021 (of which £99 million was after 31 March) and £204 million in 2022; and will amount to £175 million per annum from 2023 to 2025, with a balancing payment in 2026. During the period, £76 million of the above amount was paid to the schemes, alongside a pension strain payment of £4 million associated with historic employee redundancies.

On a pure roll-forward basis, from March 2021, using the same methodology and consequent assumptions, the technical provisions deficit (funding basis) would be c.£800 million on 30 June 2023. Note that the valuation methodology and assumptions used for future assessments may differ from those previously used.

In previous years, the Registered Pension Schemes also held a security package over the Group's equity shareholding in the Direct Energy business, amounting to £1,235 million, enforceable in the unlikely event the Group was unable to meet its obligations. In January 2021, as part of the Direct Energy disposal, the security package was released by the Pension Trustees. In exchange, the Group provided replacement security of £745 million of letters of credit and £250 million cash in escrow. In October 2022, a £400 million loan arrangement was put in place from Centrica plc to the Registered Pension Schemes and the security was reduced such that only £450 million of letters of credit remained. This loan remains outstanding at the period end. When the loan arrangement is ultimately repaid, replacement security may be required (dependent on the funding position) and the form of security will be at the Group's discretion.

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 seven directors: two independent directors (including the Chairman), two directors appointed by Centrica plc 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 2021 valuation.

13. Post-retirement benefits

(b) Accounting assumptions

The accounting assumptions for the Registered Pension Schemes are given below:

Major assumptions used for the actuarial valuation	**30 June 2023 %**	31 December 2022 %
Rate of increase in employee earnings:		
Subject to 2% cap	**1.5**	1.5
Other not subject to cap	**2.9**	2.9
Rate of increase in pensions in payment	**3.3**	3.3
Rate of increase in deferred pensions:		
In line with CPI capped at 2.5%	**2.5**	2.5
In line with RPI	**3.1**	3.0
Discount rate	**5.2**	4.7

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.

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 30 June to one of the actuarial assumptions would have affected the scheme liabilities as set out below:

Impact of changing material assumptions	**30 June 2023**		31 December 2022	
	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	**1.00 %**	**+/-1**	1.00 %	+1/-2
Rate of increase in pensions in payment and deferred pensions	**1.00 %**	**+13/-11**	1.00 %	+14/-12
Discount rate	**1.00 %**	**-15/+19**	1.00 %	-15/+19
Inflation assumption	**1.00 %**	**+14/-11**	1.00 %	+15/-12
Longevity assumption	**1 year**	**+/-2**	1 year	+/-2

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.

(c) Amounts included in the Group Balance Sheet

	30 June 2023 £m	31 December 2022 £m
Fair value of plan assets	**6,051**	6,312
Present value of defined benefit obligation	**(6,031)**	(6,272)
Recognised in the Group Balance Sheet	**20**	40
Presented in the Group Balance Sheet as:		
Retirement benefit assets	**146**	150
Retirement benefit liabilities	**(126)**	(110)

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.

Included in the Group Balance Sheet within non-current securities are £95 million (31 December 2022: £95 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, £47 million (31 December 2022: £49 million) relates to this scheme.

14. 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 expected credit losses. 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.

	30 June 2023		31 December 2022	
	Current £m	Non-current £m	Current £m	Non-current £m
Financial assets:				
Trade receivables	2,916	—	2,207	—
Unbilled downstream energy income	877	—	1,281	—
Trading and energy procurement accrued income (i)	987	—	3,179	—
Other accrued energy income	99	—	234	—
Other accrued income	79	—	90	—
Cash collateral posted	207	—	1,154	—
Supplier of Last Resort receivables	136	10	253	22
Government scheme receivables	238	—	284	—
Other receivables (including contract assets)	267	23	346	24
	5,806	33	9,028	46
Less: provision for credit losses	(1,127)	—	(872)	—
	4,679	33	8,156	46
Non-financial assets: prepayments, other receivables and costs to obtain or fulfil a contract with a customer	388	87	294	83
	5,067	120	8,450	129

(i) Trading and energy procurement counterparty receivables are typically with customers with external, published credit ratings. Such receivables have typically much lower credit risk than downstream counterparties, are settled in a short period of time and expected credit losses are not significant.

The amounts above include amounts arising from the Group's IFRS 15 contracts with customers of £3,928 million (31 December 2022: £3,696 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:

	30 June 2023		31 December 2022	
	Current £m	Non-current £m	Current £m	Non-current £m
Financial assets by business type:				
Residential customers (i)	3,039	10	2,755	22
Business customers	1,336	22	1,750	22
Treasury, trading and energy procurement counterparties	1,431	1	4,523	2
	5,806	33	9,028	46
Less: provision for credit losses	(1,127)	—	(872)	—
	4,679	33	8,156	46

(i) Residential customers include current other receivables of £136 million (31 December 2022: £253 million) and non-current other receivables of £10 million (31 December 2022: £22 million) in relation to Supplier of Last Resort (SoLR) claims.

14. Trade and other receivables and contract related assets

Credit loss charge for trade and other receivables

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 sixty 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 thirty days from receipt.

The table below shows credit impaired balances in gross receivables (those that are past due) and those that are not yet due.

Gross trade and other receivables	30 June 2023 £m	31 December 2022 £m
Balances that are not past due	4,044	7,414
Balances that are past due (i)	1,762	1,614
	5,806	9,028

(i) The majority of balances that are past due relate to residential and business customers, ageing of these receivables is included in the credit risk tables in the sections below.

The IFRS 9 impairment model is applicable to the Group's financial assets including trade receivables, contract assets and other financial assets using the simplified approach. 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 and contract assets is based on an expected credit loss model that calculates the expected loss applicable to the receivable balance over its lifetime. Expected credit losses on receivables due from treasury, trading and energy procurement counterparties are not significant. For residential and business customers default rates are calculated initially by 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 are 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 thirty days past due.

Concentration of credit risk in trade and other receivables

Treasury, trading and energy procurement counterparty receivables are typically with customers with external, published credit ratings. Such receivables have typically much lower credit risk than downstream counterparties, and that risk is assessed primarily by reference to the credit ratings rather than to the ageing of the relevant balance.

The Group continues to recover amounts receivable under the Last Resort Supplier Payment mechanism which was triggered when the Group was appointed as a Supplier of Last Resort to a number of energy suppliers who ceased to trade during 2021 and 2022. In accordance with Ofgem licence conditions, the Group submitted two claims for incremental costs reasonably incurred to supply affected customers. The first of these claims has now been settled, and the second is being settled in twelve monthly payments ending in April 2024. A further smaller claim is in process and expected to be settled by April 2025. The receivable outstanding at 30 June 2023 is £146 million (31 December 2022: £275 million). The claims are settled by network operators, to whom the Group separately pays transmission and distribution charges. The risk of default is considered low. In addition, Ofgem has the power under licensing conditions to take enforcement action against default in accordance with its statutory duties and its enforcement guidelines.

The Group's cash collateral balance has decreased to £207 million in 2023 (31 December 2022: £1,154 million) as a result of lower commodity prices. Collateral counterparties typically have strong credit ratings and accordingly have low credit risk; the Group does not expect credit losses to arise on these balances.

The majority of the Group's credit exposure arises in the British Gas Energy and Centrica Business Solutions segments and relates to residential and business energy customers. The credit risk associated with these customers is assessed as described above, using a combination of the age of the receivable in question, internal ratings based on a customer's payment history, and external data from credit rating agencies and wider macroeconomic information. The disclosures below reflect the information that is reported internally for credit risk management purposes in these segments.

14. Trade and other receivables and contract related assets

British Gas Energy credit risk

Of the Group total of £2,916 million (31 December 2022: £2,207 million) billed trade receivables, the British Gas Energy reporting segment contributes £2,289 million (31 December 2022: £1,531 million). British Gas Energy includes small business customers on the basis that their profile closely matches those of residential customers. As described above, credit risk is concentrated in receivables from energy customers who pay in arrears. Gross receivables from these British Gas Energy residential customers amount to £1,647 million (31 December 2022: £992 million) and are analysed below.

Trade receivables due from British Gas residential energy customers as at [i]	**30 June 2023**					31 December 2022				
Days beyond invoice date [ii]	< 30 days £m	30-90 days £m	>90 days £m	**Total £m**	Percentage of credit risk	< 30 days £m	30-90 days £m	>90 days £m	Total £m	Percentage of credit risk
Risk profile										
Direct debits [iii]										
Gross receivables	155	238	279	**672**		216	51	66	333	
Provision	—	(1)	(13)	**(14)**		—	—	(23)	(23)	
Net	155	237	266	**658**	**2 %**	216	51	43	310	7 %
Payment on receipt of bill [iii]										
Gross receivables	99	85	531	**715**		118	54	286	458	
Provision	(4)	(11)	(341)	**(356)**		(4)	(7)	(180)	(191)	
Net	95	74	190	**359**	**50 %**	114	47	106	267	42 %
Final bills [iv]										
Gross receivables	37	26	197	**260**		12	13	176	201	
Provision	(8)	(12)	(159)	**(179)**		(3)	(6)	(140)	(149)	
Net	29	14	38	**81**	**69 %**	9	7	36	52	74 %
Total net British Gas residential energy customers trade receivables	**279**	**325**	**494**	**1,098**	**33 %**	339	105	185	629	37 %

(i) The receivables information presented in this table relates to downstream customers who pay energy bills using the methods presented. It excludes low residual credit risk amounts, such as balances in the process of recovery through pay-as-you-go energy (PAYGE) arrangements and amounts receivable from PAYGE energy vendors. Gross amounts in the process of recovery through PAYGE arrangements at 30 June 2023 are £197 million (31 December 2022: £203 million), against which a provision of £128 million is held (31 December 2022: £138 million).

(ii) This ageing analysis is presented relative to invoicing date and presents receivables according to the oldest invoice outstanding with the customer. There are a range of payment terms extended to residential energy customers. Amounts paid on receipt of a bill (PORB), which are settled using bank transfers, cash or cheques are typically due within fourteen days of invoicing. Direct debit customers typically pay in equal instalments over a twelve-month period.

(iii) Receivables settled by direct debit are deemed to present a lower credit risk than PORB amounts. This is reflected in the relative level of provision held for these types of receivables.

(iv) Final bill customers are those who are no longer customers of the Group and have switched energy supplier. These balances are deemed to have the highest credit risk.

Gross receivables from British Gas Energy small business customers amount to £467 million (31 December 2022: £336 million) and are analysed below.

Trade receivables due from British Gas small business energy customers as at	**30 June 2023**					31 December 2022				
Days beyond invoice date [i]	< 30 days £m	30-90 days £m	>90 days £m	**Total £m**	Percentage of credit risk	< 30 days £m	30-90 days £m	>90 days £m	Total £m	Percentage of credit risk
Risk profile										
Small businesses										
Gross receivables	91	39	337	**467**		64	21	251	336	
Provision	(4)	(7)	(252)	**(263)**		(1)	(2)	(191)	(194)	
Total net British Gas small business energy customers trade receivables	**87**	**32**	**85**	**204**	**56 %**	63	19	60	142	58 %

(i) This ageing analysis is presented relative to invoicing date and presents receivables according to the oldest invoice outstanding with the customer. There are a range of payment terms extended to business energy customers. Average credit terms for small business customers are ten working days.

Unbilled downstream energy income at 30 June 2023 includes gross balances of £643 million in respect of British Gas energy customers (31 December 2022: £880 million), against which a provision of £25 million is held (31 December 2022: £36 million).

14.Trade and other receivables and contract related assets

Centrica Business Solutions energy credit risk

Of the Group total of £2,916 million (31 December 2022: £2,207 million) billed trade receivables, the Centrica Business Solutions reporting segment contributes £325 million (31 December 2022: £390 million). As described above, credit risk is concentrated in receivables from business energy customers who pay in arrears, the remaining balances being immaterial in disaggregation. Gross receivables from these customers amount to £290 million (31 December 2022: £346 million) and are analysed below.

Trade receivables due from Centrica Business Solutions business energy customers as at	**30 June 2023**					31 December 2022				
Days beyond invoice date (i)	< 30 days £m	30-90 days £m	>90 days £m	**Total £m**	Percentage of credit risk	< 30 days £m	30-90 days £m	>90 days £m	Total £m	Percentage of credit risk
Risk profile										
Commercial and industrial (ii)										
Gross receivables	105	12	26	**143**		170	9	31	210	
Provision	—	(1)	(17)	**(18)**		—	—	(15)	(15)	
Net	105	11	9	**125**	**13 %**	170	9	16	195	7 %
Medium-sized entities (ME)										
Gross receivables	43	16	88	**147**		47	15	74	136	
Provision	(1)	(2)	(57)	**(60)**		—	—	(49)	(49)	
Net	42	14	31	**87**	**41 %**	47	15	25	87	36 %
Total net Centrica Business Solutions business energy customers trade receivables	**147**	**25**	**40**	**212**	**27 %**	217	24	41	282	18 %

(i) This ageing analysis is presented relative to invoicing date and presents receivables according to the oldest invoice outstanding with the customer. There are a range of payment terms extended to business energy customers. Average credit terms for ME customers are ten working days. Credit terms for commercial and industrial customers are bespoke and are set based on the commercial agreement with each customer.

(ii) This category includes low credit risk receivables, including those from public sector and customers with high turnover (greater than £100 million).

Unbilled downstream energy income at 30 June 2023 includes gross balances of £212 million in respect of Centrica Business Solutions business energy customers (31 December 2022: £349 million), against which a provision of £12 million is held (31 December 2022: £14 million).

The remaining reporting segments which are not shown above are not considered to have material credit risk.

14.Trade and other receivables and contract related assets

Sensitivity to changes in assumptions

Typically, 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 that 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 the recoverability of the balance.

The specific consideration of forward-looking information in the impairment model does not usually give rise to significant changes in the levels of credit losses. However, inflationary pressures and increasing wholesale gas and electricity costs continue to cause uncertainty in economic outlook. The economic recovery remains vulnerable and there remains a level of estimation uncertainty inherent in determining credit loss provisions for the Group's trade receivables.

Where customers experience difficulties in settling balances, the increased ageing of these amounts results in an increase in provisions held in respect of them under the provision matrix approach employed. The Group has also considered changes in customer payment patterns, the specific circumstances of the customers and the economic impacts of the factors identified above, on the sectors in which they operate. Whilst economic recovery is expected, a level of unpredictability remains apparent.

Customers are facing increases in their cost of living, including increased energy bills, higher inflation and higher interest rates. The Group has considered macroeconomic forecasts and sensitivities, as well as disposable income analysis from a credit rating agency, to model and determine the level of provisions for credit losses.

During the period, the Group recognised impairment charges of £309 million (2022: £140 million) in respect of financial assets, representing 1.9% of Group revenue (2022: 1.4%) and 1.5% of Group revenue from business performance (2022: 1.0%). As described above, the majority of the Group's credit exposure arises in respect of downstream energy receivables in British Gas Energy and Centrica Business Services. Credit losses in respect of these assets amounted to £300 million (2022: £132 million). This represents 2.2% (2022: 2.1%) of total UK downstream energy supply revenue from these segments of £13,753 million (2022: £6,223 million). Further details of segmental revenue are provided in note 4.

Due to the different level of risks presented by billed and unbilled receivables, these asset groups are considered separately in the analysis below.

Billed trade receivables

	30 June 2023 £m	31 December 2022 £m
Trade receivables [(i)]	**2,916**	2,207
Provision	**(1,091)**	(822)
Net balance	**1,825**	1,385

	30 June 2023 %	31 December 2022 %
Provision coverage	**37**	37
Sensitivity	**£m**	£m
Impact on billed receivables/operating profit from 1 percentage point (increase)/decrease in provision coverage [(ii)]	**(29)/29**	(22)/22

(i) Excludes the Government receivables under the Energy Price Guarantee (EPG) and Energy Bill Relief Scheme (EBRS) schemes of £238 million (31 December 2022: £284 million) which are not provided for.

(ii) Credit risk in the Group is impacted by a large number of interacting factors.

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14.Trade and other receivables and contract related assets

Overall billed debt levels have increased significantly, in part due to seasonality, and the recovery rates have deteriorated as cash collections relative to billings decline, particularly within the residential and small business segments. Provision rates for customers in the Group's downstream operations have not changed materially. This reflects the expectations of lower recoverability resulting from the suspension of all debt field activity, offset by favourable mix of lower risk customer debt. The mix of customer debt is driven largely by a higher proportion of direct debit debt in the residential portfolio which is considered lower risk and attracts a lower rate of bad debt provision, largely associated with normal seasonal billing patterns.

The macroeconomic environment continues to be challenging with high inflation, low growth projections, higher interest rates and customer mortgage rates, with the effects not fully known. There remains significant uncertainty around the possible increase in bad debt as a result of these factors and leading debt indicators including the number of new customers going into debt and direct debit cancellation rates in residential have continued to deteriorate during 2023. There is a delayed impact on customer payments and lower commodity prices are tempered by more limited government support measures for customer bill values, meaning the impact has yet to be fully reflected in the underlying matrix output model used to record provision coverage. Therefore, as part of management's assessment of adequacy of bad debt provisions, an £87 million increase to the macroeconomic provision has been recorded, the provision now totals £212 million across billed and unbilled debt and is included in the tables both above and below (31 December 2022: £125 million). Management has considered the impact of specific cohorts of customers when making this assessment, recognising the different credit terms and different risk profiles that exist. This assessment also utilises a range of factors, both internal and external, historic and forward-looking, and considers the sensitivities of these to help management estimate the likely recovery of debt. It remains uncertain as to when and how these factors will reduce the collectability of debt and at what scale. The table above and the unbilled section below provide details of the sensitivity of moving the debt provision by a further 1%.

The Group's services, upstream and trading operations are less susceptible to credit risk. No significant deterioration of credit risk has been experienced or is expected in the relevant segments in respect of billed trade receivables recognised at 30 June 2023, taking into account cash collection cycles in those areas of the Group and credit rating information.

Unbilled downstream energy income

The table below shows the IFRS 15 unbilled downstream energy income for the Group as a whole.

	30 June 2023 £m	31 December 2022 £m
Gross unbilled receivables	877	1,281
Provision	(37)	(50)
Net balance	840	1,231

	30 June 2023 %	31 December 2022 %
Provision coverage	4	4
Sensitivity	£m	£m
Impact on unbilled receivables/operating profit from 1 percentage point (increase)/decrease in provision coverage (i)	(9)/9	(13)/13

(i) Credit risk in the Group is impacted by a large number of interacting factors.

Unbilled downstream energy income is typically provided at a significantly lower rate than billed debt. This is because a large proportion of this debt once billed will be subject to the very short cash collection cycles of the Group's downstream energy supply businesses.

15. 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.

	30 June 2023				31 December 2022			
	Level 1 £m	Level 2 £m	Level 3 £m	**Total £m**	Level 1 £m	Level 2 £m	Level 3 £m	Total £m
Financial assets								
Derivative financial instruments:								
Energy derivatives	—	3,795	121	**3,916**	—	6,486	592	7,078
Interest rate derivatives	—	3	—	**3**	—	37	—	37
Foreign exchange derivatives	—	157	—	**157**	—	312	—	312
Debt instruments	65	—	1	**66**	66	—	1	67
Equity instruments	29	20	18	**67**	29	9	17	55
Contingent consideration receivable	—	—	—	**—**	—	26	—	26
Cash and cash equivalents	—	5,841	—	**5,841**	—	2,978	—	2,978
Total financial assets at fair value	**94**	**9,816**	**140**	**10,050**	95	9,848	610	10,553
Financial liabilities								
Derivative financial instruments:								
Energy derivatives	—	(2,916)	(441)	**(3,357)**	—	(8,806)	(850)	(9,656)
Interest rate derivatives	—	(252)	—	**(252)**	—	(221)	—	(221)
Foreign exchange derivatives	—	(157)	—	**(157)**	—	(274)	—	(274)
Contingent consideration payable	—	—	(115)	**(115)**	—	—	(96)	(96)
Total financial liabilities at fair value	**—**	**(3,325)**	**(556)**	**(3,881)**	—	(9,301)	(946)	(10,247)

The reconciliation of the Level 3 fair value measurements during the period is as follows:

	2023		2022	
Period ended 30 June	**Financial assets £m**	**Financial liabilities £m**	Financial assets £m	Financial liabilities £m
Level 3 financial instruments				
1 January	**610**	**(946)**	501	(290)
Total realised and unrealised (losses)/gains:				
Recognised in Group Income Statement	**(316)**	**166**	779	(944)
Net movement in contingent consideration liability	**—**	**(19)**	—	(81)
Purchases, sales, issuances and settlements (net)	**(47)**	**111**	—	—
Transfers from Level 3 to Level 2 [(i)]	**(105)**	**132**	—	—
Foreign exchange movements	**(2)**	**—**	—	—
30 June	**140**	**(556)**	1,280	(1,315)
Total (losses)/gains for the year for Level 3 financial instruments held at the end of the reporting period	**(316)**	**166**	779	(944)

(i) The transfers from Level 3 to Level 2 have arisen following a reassessment of liquidity in certain European markets.

(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 6% per annum (31 December 2022 average discount rate of 5% 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 the Group's contractual terms. This applies to certain contracts within Europe. 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 6% per annum (31 December 2022 average discount rate of 5% per annum).

Active period of markets	Gas	Power	Coal	Emissions	Oil
UK (years)	4	4	3	3	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 that are within the scope of IFRS 9. The Group has numerous other commodity contracts that 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 Financial Controller and the Group Chief Financial Officer. The 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. 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 as follows:

Day-one gains deferred	2023	2022
	£m	£m
1 January	304	90
Net gains deferred on transactions in the period	62	152
Net amounts recognised in Group Income Statement	(140)	(54)
Exchange differences	(9)	4
30 June 2023	217	192

(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:

			30 June 2023			31 December 2022		
		Notes	Carrying value	Fair value	Fair value hierarchy	Carrying value	Fair value	Fair value hierarchy
			£m	£m		£m	£m	
Bonds	Level 1	12	(2,733)	(2,787)	Level 1	(2,805)	(2,840)	Level 1
	Level 2	12	(69)	(79)	Level 2	(69)	(79)	Level 2

16. 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's commitments primarily relate to the acquisition of property, plant and equipment and intangible assets, commodity purchase contracts, and contracts for LNG, transportation and other capacity.

Commodity purchase contract commitments have decreased by £24 billion since 31 December 2022 to £46 billion, predominately as a result of forecast decreased prices.

Other commitments, including the acquisition of property, plant and equipment and intangible assets, have remained at £8 billion since 31 December 2022.

(b) Contingent liabilities

The Group has no material contingent liabilities.

17. 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 30 June 2023 and the date of this report.

On 10 July 2023 the Company signed a Sale and Purchase Agreement with Delfin Midstream Inc. The agreement, due to start in 2027, is to purchase one million tonnes of LNG per annum over 15 years on a Free on Board ("FOB") basis at the Delfin Deepwater Port, located 40 nautical miles off the coast of Louisiana.

On 26 July 2023 the Directors approved an interim dividend of 1.33p per share. See note 10. The Group also announced an intention to extend the existing share buyback programme by an additional £450 million.

18. 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 period, 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:

	2023		2022	
	Purchase of goods and services (i) £m	**Amounts owed to (ii) £m**	Purchase of goods and services (i) £m	Amounts owed to (iii) £m
Associates:				
Nuclear	**(254)**	**(46)**	(274)	(102)
Joint Ventures	**(1)**	**—**	—	—
	(255)	**(46)**	(274)	(102)

(i) Six months ended 30 June
(ii) As at 30 June
(iii) As at 31 December

During the period, there were no material changes to commitments in relation to joint ventures and associates.

At the balance sheet date, the Group had committed facilities to the Lake Acquisition Group totalling £120 million (31 December 2022: £120 million), although nothing has been drawn down at 30 June 2023 (31 December 2022: £nil).

19. 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. These condensed interim Financial Statements do not include all financial risk management information and disclosures included in note S3 of the Group's consolidated Financial Statements for the year ended 31 December 2022.

The Group’s normal operating, investing and financing activities expose it to a variety of risks. Risk management is fundamental to the way the Group is governed and managed. The system of risk management and internal control is set out in the 2022 Annual Report and Accounts.

Global wholesale energy prices have put pressure on the energy market, with gas and electricity prices reaching record levels during 2022, exacerbated by the war in Ukraine and cessation of supply to Europe from the Nord Stream 1 pipeline. Higher price levels and extreme volatility severely increases the credit and liquidity, commodity price and weather risks, which the Group manages through agile hedging policies and effective demand forecasting. The investment to increase capacity at the Rough gas storage facility will further strengthen the UK’s energy resilience. The long-term aim is to turn Rough into the world’s largest methane and hydrogen storage facility. The Group will reallocate capital investment to bolster the UK’s energy security, decarbonise the UK’s industrial clusters and help reinstate the UK as a net exporter of energy.

Compliance with the many requirements proposed in the Government’s paper on Restoring Trust in Audit and Corporate Governance is flagged as an emerging risk and there are projects in progress to understand, design and implement our responses.

Risks are assessed at a Business Unit (BU) level to determine the impact and likelihood. During the BU and Group level risk reviews, the adequacy of mitigating actions are considered given the net residual risk scores in comparison to the Group risk appetite.

Bi-annually, the Group Principal Risks are presented to the Centrica Leadership Team (CLT) for review and challenge. These include the aggregate risk assessments from the BU ‘bottom-up’ process and any Group-level risk assessments. All Group Principal Risks including financial risks as updated by the CLT are presented to the Audit and Risk Committee for review.

The four main areas of financial risk are managed as follows:

(i) Commodity price risk management is carried out in accordance with the individual BU policies and directives including appropriate escalation routes, as approved by the Group Hedging Policy Committee;

(ii) 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;

(iii) Wholesale credit risks associated with commodity trading and treasury positions are managed in accordance with the Group’s Credit Risk Policy, including appropriate escalation routes as approved by the Group Chief Financial Officer; and

(iv) Downstream customer credit risk management is carried out in accordance with individual BU credit policies.

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. It continues to operate within its limits. In respect of trading activities across 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.

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 gross debt (excluding non-recourse debt) in the capital market and to maintain an average term to maturity in the recourse long-term debt portfolio greater than five years.

At 30 June 2023 the Group had undrawn committed credit facilities of £3,804 million (31 December 2022: £3,951 million) and £5,932 million (31 December 2022: £3,687 million) of unrestricted cash and cash equivalents, net of outstanding overdrafts. 84% (31 December 2022: 82%) of the Group’s gross debt has been raised in the long-term debt market and the average term to maturity of the long-term debt portfolio was 9.4 years (2022: 9.9 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. Margin/collateral is generally posted or received to support energy trading and procurement activities. It is posted when contracts with marginable counterparties are out of the money and received when contracts are in the money. Cash is generally returned to the Group or by the Group within two days of trade settlement. At 30 June 2023 the collateral position was as follows:

	30 June 2023 £m	31 December 2022 £m
Collateral (received)/posted included within:		
Trade and other payables	**(370)**	(601)
Trade and other receivables	**207**	1,154
Collateral (received)/posted extinguishing:		
Net derivative liabilities [(i)]	**(124)**	270
Net collateral (received)/posted [(ii)]	**(287)**	823

(i) Variation margin on daily settled derivatives results in the extinguishment of the net derivative asset/liability. These contracts remain outstanding until a future delivery date, and therefore the cumulative daily settlement is considered collateral until that fulfilment date.

(ii) In-year movements of net collateral (received)/posted include exchange adjustments of £(3) million (2022: £61 million).

20. Seasonality of operations

Certain activities of the Group are affected by weather and temperature conditions. As a result of this, amounts reported for the six-month period ended 30 June 2023 may not be indicative of the amounts that would be reported for a full year due to seasonal fluctuations in customer demand for gas, electricity and services, the impact of weather on demand and commodity prices, and market changes in commodity prices and retail tariffs.

Customer demand for gas in the UK and the Republic of Ireland is driven primarily by heating load and is generally higher in the winter than in the summer, and higher from January to June than from July to December. Customer demand for electricity in the UK and the Republic of Ireland generally follows a similar pattern to gas, but is more stable.

Customer demand for home services in the UK is generally higher in the winter than it is in the summer, and higher in the earlier part of the winter as that is typically when heating systems tend to break down most, so that customer demand from July to December is higher than from January to June.

Gas production volumes are generally higher in the winter when gas prices are higher. Gas production volumes are generally higher from January to June than they are from July to December as outages are generally planned for the summer months when gas demand and prices are at their lowest.

The impact of seasonality on customer demand and wholesale prices has a direct effect on the Group's financial performance and cash flows.

Explanatory Notes

Definitions and reconciliation of adjusted performance measures

Centrica's 2023 Interim Results 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 revenue, adjusted gross margin, adjusted operating profit, adjusted earnings and free cash flow have been defined and reconciled separately in notes 3, 4 and 9 to the Financial Statements where further explanation of the measures is given. Additional performance measures are used within these Financial Statements to help explain the performance of the Group and these are defined and reconciled below. Further information has been provided to help readers when reconciling between different parts of the consolidated Group Financial Statements, and when reconciling cash flow measures to the Group Cash Flow Statement.

Adjusted EBITDA

Adjusted 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. Further, a reconciliation excluding Spirit Energy disposed assets is provided.

Six months ended 30 June	Notes	2023 £m	2022 £m	Change
Group operating profit/(loss)	I/S	**6,462**	(1,099)	
Exceptional items included within Group operating profit/loss and certain re-measurements before taxation	6	**323**	(95)	
Certain re-measurements before taxation	6	**(4,702)**	2,536	
Share of profits of joint ventures and associates, net of interest and taxation [(i)]	I/S	**(68)**	(49)	
Depreciation and impairments of PP&E [(i)]	4	**217**	282	
Amortisation, write-downs and impairments of intangibles [(i)]	4	**72**	85	
Group total adjusted EBITDA		**2,304**	1,660	39 %

(i) These line items relate to business performance only.

Adjusted EBITDA excluding Spirit Energy disposed assets

Six months ended 30 June	2023 £m	2022 £m	Change
Group total adjusted EBITDA	**2,304**	1,660	
Less: disposed assets adjusted EBITDA (including associated hedges)	**—**	(485)	
Adjusted EBITDA excluding Spirit Energy disposed assets	**2,304**	1,175	96%

Adjusted operating profit excluding Spirit Energy disposed assets

Six months ended 30 June	Notes	2023 £m	2022 £m	Change
Group total adjusted operating profit	I/S	**2,083**	1,342	
Less: disposed assets adjusted operating profit (including associated hedges)		**—**	(485)	
Adjusted operating profit excluding Spirit Energy disposed assets		**2,083**	857	143%

The below table shows how adjusted EBITDA reconciles to free cash flow:

Six months ended 30 June	Notes	2023 £m	2022 £m
Adjusted EBITDA		**2,304**	1,660
Group operating profit/(loss) including share of joint ventures and associates, from exceptional items and certain re-measurements	I/S	**4,379**	(2,441)
Share of losses/(profits) of joint ventures and associates, net of interest and taxation, from exceptional items and certain re-measurements	I/S	**1**	(1)
Depreciation, amortisation, write downs, impairments and write-backs, from exceptional items and certain re-measurements	I/S	**323**	(424)
Loss on disposals	C/F	**—**	329
(Decrease)/increase in provisions	C/F	**(1,035)**	1,845
Cash contributions to defined benefit schemes in excess of service cost income statement charge	C/F	**(96)**	(85)
Employee share scheme costs	C/F	**15**	3
Unrealised (gains)/losses arising from re-measurement of energy contracts	C/F	**(3,074)**	1,224
Net movement in working capital	C/F	**82**	(1,555)
Taxes paid	C/F	**(402)**	(367)
Operating interest paid	C/F	**(8)**	—
Payments relating to exceptional charges in operating profit	C/F	**(4)**	(23)
Net cash flow from operating activities		**2,485**	165
Purchase of businesses, net of cash acquired	C/F	**(5)**	(5)
Sale of businesses	C/F	**55**	82
Purchase of property, plant and equipment and intangible assets	C/F	**(176)**	(223)
Sale of property, plant and equipment and intangible assets	C/F	**—**	1
Investments in joint ventures and associates	C/F	**(9)**	(1)
Dividends received from joint ventures and associates	C/F	**60**	—
UK Pension deficit payments	4	**80**	105
Movements in variation margin and collateral	4	**(1,113)**	519
Group total free cash flow	4	**1,377**	643

Adjusted earnings attributable to shareholders excluding Spirit Energy disposed assets

Six months ended 30 June	Notes	2023 £m	2022 £m	Change
Adjusted earnings attributable to shareholders	I/S	**1,466**	643	
Less: disposed assets adjusted earnings attributable to shareholders (including associated hedges)		**—**	(45)	
Adjusted earnings attributable to shareholders excluding Spirit Energy disposed assets		**1,466**	598	145%

Adjusted basic earnings per share excluding Spirit Energy disposed assets

Six months ended 30 June	Notes	2023 £m	2022 £m	Change
Adjusted earnings attributable to shareholders excluding Spirit Energy disposed assets (£m)		**1,466**	598	
Weighted average of ordinary shares in issue during the period (million shares)	9	**5,686**	5,868	
Adjusted basic earnings per share excluding Spirit Energy disposed assets		**25.8p**	10.2p	153%

Definitions and reconciliation of adjusted performance measures

Loss on disposals

Six months ended 30 June	Notes	2023 £m	2022 £m
Loss on disposals	C/F	—	329
Less: Exceptional loss on disposals	6	—	(329)
Loss on disposals relating to business performance		—	—

Group net investment

With an increased focus on cash generation, capital discipline and managing net debt/cash, Group net investment provides a measure of the Group's capital expenditure from a cash perspective and allows the Group's capital discipline to be assessed.

Six months ended 30 June	Notes	2023 £m	2022 £m	Change
Capital expenditure (including small acquisitions) (i)		190	228	
Net disposals (ii)		(55)	(82)	
Group net investment		135	146	(8)%
Dividends received from joint ventures and associates	C/F	(60)	—	
Interest received	C/F	(105)	(8)	
Net purchase of securities	C/F	17	1	
Net cash flow from investing activities	C/F	(13)	139	(109)%

(i) Capital expenditure is the net cash flow on capital expenditure, purchases of businesses and investments in joint ventures and associates (less than £100 million). See table (a).

(ii) Net disposals is the net cash flow from sales of businesses, property, plant and equipment and intangible assets, and disposals of investments in joint ventures and associates. See table (b).

Group net investment is capital expenditure including acquisitions less net disposals. It excludes cash flows from investing activities not associated with capital expenditure as detailed in the table above.

(a) Capital expenditure (including small acquisitions)

Six months ended 30 June	Notes	2023 £m	2022 £m	Change
Purchase of property, plant and equipment and intangible assets	C/F	176	223	
Purchase of businesses, net of cash acquired	C/F	5	5	
Investment in joint ventures and associates	C/F	9	—	
Less: material acquisitions (>£100 million)		—	—	
Capital expenditure (including small acquisitions)		190	228	(17)%

(b) Net disposals

Six months ended 30 June	Notes	2023 £m	2022 £m	Change
Sale of businesses	C/F	(55)	(82)	
Sale of property, plant and equipment and intangible assets	C/F	—	(1)	
Investment in joint ventures and associates	C/F	—	1	
Net disposals		(55)	(82)	(33)%

Definitions and reconciliation of adjusted performance measures

The following tables provide additional information to help readers when reconciling between different parts of the consolidated Group Financial Statements, and the Group Cash Flow Statement.

Reconciliation from free cash flow to change in adjusted net cash

Six months ended 30 June	Notes	2023 £m	2022 £m
Group total free cash flow	4	**1,377**	643
Financing interest paid	C/F	**(108)**	(125)
Interest received	C/F	**105**	8
UK Pension deficit payments	4	**(80)**	(105)
Share buyback programme	C/F	**(340)**	(1)
Distributions to non-controlling interests	C/F	**(17)**	—
Dividends paid	C/F	**—**	(233)
Movements in variation margin and collateral	4	**1,113**	(519)
Cash flows affecting adjusted net cash		**2,050**	(332)
Non-cash movements in adjusted net cash		**(188)**	(32)
Change in adjusted net cash		**1,862**	(364)
Opening adjusted net cash	12	**1,199**	680
Closing adjusted net cash	12	**3,061**	316

Reconciliation of adjusted net cash to net cash

Adjusted net cash is a business performance measure used by management to assess the underlying indebtedness of the business.

Six months ended 30 June	Notes	2023 £m	2022 £m
Adjusted net cash	12	**3,061**	316
Less: current and non-current securities	12	**(543)**	(124)
Less: sub-lease assets	12	**(2)**	(2)
Net cash		**2,516**	190

Payments relating to exceptional charges in operating costs

Six months ended 30 June	Notes	2023 £m	2022 £m
Utilisation of prior year restructuring liabilities		**4**	23
Payments relating to exceptional charges in continuing operating costs	C/F	**4**	23

Depreciation, amortisation, write-downs, impairments and write-backs

Six months ended 30 June	Notes	2023 £m	2022 £m
Movement from depreciation, amortisation, write-downs, impairments and write-backs, from exceptional items included in the Group Cash Flow Statement	6	**323**	(424)
Made up of:			
Impairment/(write-back) of power assets	6	**323**	(424)
Movement from depreciation, amortisation, write-downs, impairments and write-backs, from business performance included in the Group Cash Flow Statement		**289**	367
Made up of:			
Business Performance PP&E depreciation	4	**216**	282
Business Performance intangibles amortisation	4	**71**	85
Business Performance intangibles impairments and write-downs	4	**2**	—
Movement from depreciation, amortisation, write-downs, impairments and write-backs included in the Group Cash Flow Statement		**612**	(57)

Definitions and reconciliation of adjusted performance measures

Reconciliation of receivables and payables to Group Cash Flow Statement

Six months ended 30 June	Notes	2023 £m	2022 £m
Receivables opening balance	B/S	**8,579**	6,114
Less receivables closing balance	B/S	**(5,187)**	(6,055)
Payables opening balance	B/S	**(10,341)**	(7,633)
Less payables closing balance	B/S	**6,939**	6,611
Net reduction in receivables and payables		**(10)**	(963)
Non-cash changes, and other reconciling items:			
Movement in share buyback liability		**40**	—
Dividend creditor		**(113)**	—
Business disposals		**(55)**	9
Movement in capital creditors		**22**	—
Movement in ROCS and emission certificate intangible assets		**(337)**	(138)
Other movements (including foreign exchange movements)		**(25)**	25
Non-cash changes, and other reconciling items		**(468)**	(104)
Movement in trade and other receivables, trade and other payables and contract related assets relating to business performance	C/F	**(478)**	(1,067)

Pensions

Six months ended 30 June	Notes	2023 £m	2022 £m
Cash contributions to defined benefit schemes in excess of service cost income statement charge	C/F	**(96)**	(85)
Ordinary employer contributions		**(28)**	(21)
UK Pension deficit payments		**(80)**	(105)
Contributions by employer in respect of employee salary sacrifice arrangements		**(12)**	(11)
Total current service cost		**24**	52

Disclosures

Disclaimers

This announcement does not constitute an invitation to underwrite, subscribe for, or otherwise acquire or dispose of any Centrica shares or other securities. This announcement contains certain forward-looking statements. Forward-looking statements can be identified by the use of terms such as 'intend', 'aim', 'project', 'anticipate', 'estimate', 'plan', 'believe', 'expect', 'forecasts', 'may', 'could', 'should', 'will', 'continue' or similar words. Forward-looking statements appear in a number of places throughout this announcement and include statements regarding the current intentions, beliefs or expectations of the Directors, of the Company and/or the Group concerning, among other things, the financial condition, goals and commitments, prospects, growth, strategies, results, operations and businesses of Centrica.

Although we make such statements based on assumptions that we believe to be reasonable, by their nature, these forward-looking statements are subject to risk and uncertainties because they relate to, and may be impacted by, events and circumstances that will occur in the future which are beyond Centrica's ability to control or estimate precisely. There can be no assurance that Centrica's actual future results, financial condition, performance, operations and businesses will not differ materially from those express or implied in the forward-looking statements due to a variety of factors, including, but not limited to, those set out in this announcement and the 'Our Principal Risks and Uncertainties' section of the Strategic Report in our Annual Report and Accounts. Readers are cautioned that these forward-looking statements are not guarantees or predictions of Centrica's future performance and undue reliance should not be placed on them when making investment decisions.

At any time subsequent to the publication of this announcement, neither the Company nor any other person assumes responsibility for the accuracy and completeness or undertakes any obligation, to update or revise any of these forward-looking statements to reflect any new information or any changes in events, conditions or circumstances on which any such forward-looking statement is based save in respect of any requirement under applicable law or regulation.

Past performance is no guide to future performance and persons needing advice should consult an independent financial adviser.

When considering the information contained in, or referred to in this announcement, please note that profit and inventory from Rough operations are reported under Centrica Storage Limited for presentational purposes only. Centrica Storage Limited does not produce, supply or trade gas, except to the extent necessary for the efficient operation of the storage facility. In accordance with the Gas Act 1986, such production, supply and trading of gas is carried out wholly independently of Centrica Storage Limited by other Centrica group companies.

For further information

Centrica will hold its 2023 Interim Results presentation for analysts and institutional investors at 10.30am (UK) on Thursday 27 July 2023. There will be a live audio webcast of the presentation and slides. Please register to view the webcast at:

https://webcasts.centrica.com/centrica130

You may also listen via conference call. To register for this call and to receive a unique caller reference number, visit:

https://webcasts.centrica.com/centrica130/vip_connect

An archived webcast and full transcript of the presentation and question and answer session will be available on the Centrica website on Monday 31 July 2023.

Enquiries

Investors and analysts:	Investor Relations	
	Telephone:	+44(0)1753 494900
	Email:	ir@centrica.com
Media:	Media Relations	
	Telephone:	+44 (0)1784 843000
	Email:	media@centrica.com

Financial calendar

Ex-dividend date for 2023 interim dividend	Thursday 5 October 2023
Record date for 2023 interim dividend	Friday 6 October 2023
Payment of 2023 interim dividend	Thursday 16 November 2023

For more information on Centrica's financial calendar please visit: https://www.centrica.com/investors/financial-calendar/

Registered office

Millstream, Maidenhead Road, Windsor, Berkshire, SL4 5GD.