



From IOC to IEC

International Oil Company
to Integrated Energy Company



Growing the value of bp

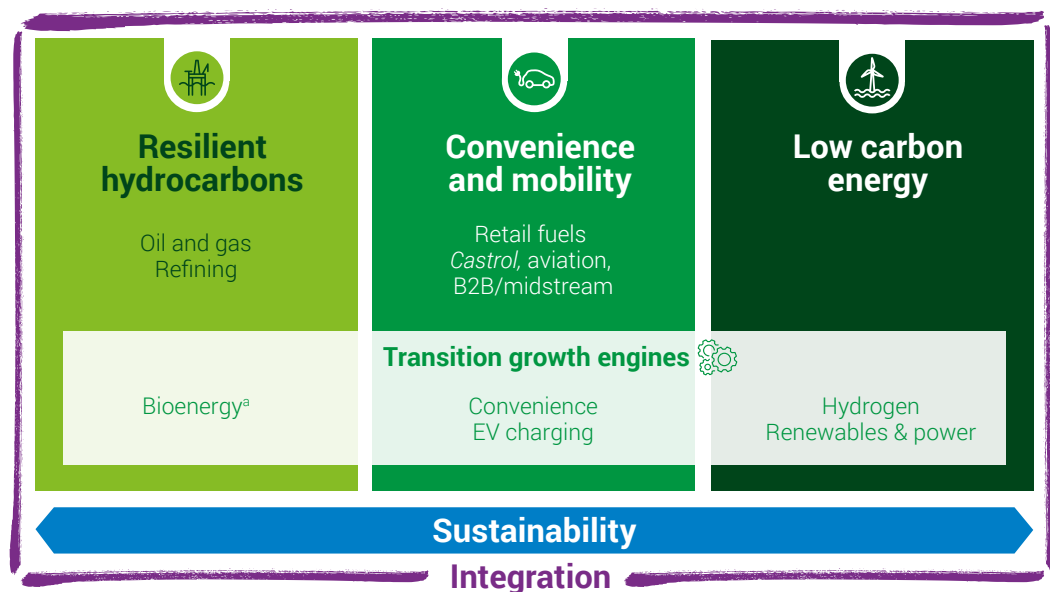
Our destination is unchanged – we are transforming from an international oil company to an integrated energy company.

Investing in today's energy system, while helping build out tomorrow's – all in service of growing the value of bp.

We are confident in our strategy and plan to deliver this as a simpler, more focused and higher value company.

Our strategy

Our strategy is focused on three key areas of activity, which include our five transition growth★ engines. Our sustainability frame and the power of integration underpins and connects it all.



 Our strategy, [page 12](#)

Navigating this report

 [Read more on another page of this report](#)

 [Read more online](#)

Glossary

Words and terms marked with ★ are defined in the glossary on [page 373](#)

Task Force on Climate-related Financial Disclosures (TCFD)

Information that supports TCFD Recommendations and Recommended Disclosures in relation to Metrics and Targets is indicated with **T**.

More information

Online quick read

A concise summary of the *bp Annual Report and Form 20-F 2023*, highlighting strategy, performance and sustainability information.

 [bp.com/annualreport](https://www.bp.com/annualreport)

Online reporting centre

All our bp corporate reports, including the *Sustainability Report*, the *Net Zero Ambition Progress Update* and the *bp Energy Outlook*.

 [bp.com/reportingcentre](https://www.bp.com/reportingcentre)

^a Bioenergy includes customer-facing and midstream biofuels activities that form part of convenience and mobility.

2023 at a glance

As at 31 December 2023

Scale

87,800^b

employees
(2022 67,600)

2.3

**million barrels of oil equivalent
– upstream★ production**
(2022 2.3mmboe/d)

21,100

retail sites★
(2022 20,650)

Performance

\$15.2bn

**profit for the year attributable
to bp shareholders**
(2022 loss \$(2.5)bn)

95.0%

**bp-operated upstream
plant reliability★**
(2022 96.0%)

2,850

strategic convenience sites★
(2022 2,400)

\$5.78/boe

**upstream★ unit
production costs★**
(2022 \$6.07/boe)

Safety and sustainability

39

**tier 1 and 2 process
safety events★**
(2022 50)

61

countries of operation
(2022 62)

>29,000

electric vehicle charge points★
(2022 ~22,000)

\$13.8bn

**underlying replacement
cost (RC) profit★**
(2022 \$27.7bn)

96.1%

**bp-operated refining
availability★**
(2022 94.5%)

6.2GW

**developed renewables
to FID★ (net)**
(2022 5.8GW)

0.9

**million tonnes of CO₂
equivalent – sustainable
GHG emissions reductions★**
(2022 1.5MtCO₂e)

Key

● Performance against our strategy, [page 13](#)

● Key performance indicator, [page 24](#)

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^b This figure reflects new acquisitions including TravelCenters of America.

About bp

We deliver energy products and services to our customers around the world, and we plan to do so increasingly in ways that we believe will help drive the transition to a lower carbon future.

We have operations in Europe, North and South America, Australasia, Asia and Africa.

Our purpose

Our purpose is reimagining energy for people and our planet. We want to help the world reach net zero and improve people’s lives.

Who we are

‘Who we are’ defines what we stand for at bp, building on our best qualities and those things that are most important to us. It comprises three simple beliefs that can inspire each of us at bp to be our best every day.

Live our purpose

Play to Win

Care for others

Financial reporting segment performance

At 31 December 2023, the group’s reportable segments were gas & low carbon energy, oil production & operations and customers & products. Each is managed separately, with decisions taken for the segment as a whole, and represents a single operating segment that does not result from aggregating two or more segments (see Financial statements – Note 5).

Gas & low carbon energy^a

Comprises our gas & low carbon energy businesses. Our gas business includes regions with upstream activities that predominantly produce natural gas, integrated gas and power, and gas trading. Our low carbon business includes solar, offshore and onshore wind, hydrogen and carbon capture and storage (CCS), and power trading. Power trading includes trading of both renewable and non-renewable power.

\$14.1bn

replacement cost (RC) profit before interest and tax^b
(2022 \$14.7bn)

\$8.7bn

underlying RC profit before interest and tax★
(2022 \$16.1bn)

Segment performance, page 39



Our people at bp’s Sunbury campus in Surrey, UK

Our people, page 70



Seagull oil and gas field in the UK North Sea

Resilient hydrocarbons, page 19

^a The Azerbaijan-Georgia-Türkiye and Middle East regions have been further subdivided by asset.

^b IFRS requires that the measure of profit or loss disclosed for each operating segment is the measure that is provided regularly to the chief operating decision maker. For bp, this measure of profit or loss is replacement cost profit before interest and tax, which reflects the replacement cost of inventories sold in the period and is arrived at by excluding inventory holding gains and losses★ from profit before interest and tax. Replacement cost profit for the group is not a recognized measure under IFRS. For further information see Financial statements – Note 5.

Oil production & operations^a

Comprises regions with upstream activities that predominantly produce crude oil, including bpx energy.

\$11.2bn

RC profit before interest and tax^b
(2022 \$19.7bn)

 Segment performance, [page 42](#)

\$12.8bn

underlying RC profit before interest and tax
(2022 \$20.2bn)

Customers & products

Comprises customer-focused businesses, which include convenience and retail fuels, EV charging, as well as *Castrol*, aviation and B2B and midstream. It also includes our products businesses, refining & oil trading, as well as our bioenergy businesses.

\$4.2bn

RC profit before interest and tax^b
(2022 \$8.9bn)

 Segment performance, [page 44](#)

\$6.4bn

underlying RC profit before interest and tax
(2022 \$10.8bn)

Other businesses & corporate

Comprises innovation & engineering; bp ventures; launchpad; regions, corporates & solutions; our corporate activities and functions; and any residual costs of the Gulf of Mexico oil spill. It also includes Rosneft results up to 27 February 2022.

\$(0.9)bn

RC loss before interest and tax^b
(2022 loss \$(26.7)bn)









 Segment performance, [page 46](#)

\$(0.9)bn


underlying RC loss before interest and tax
(2022 loss \$(1.2)bn)

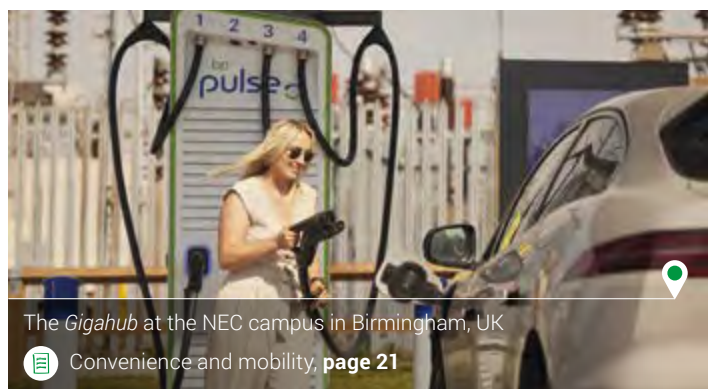
Reconciling strategic pillars to our reportable segments

At 31 December 2023 the group's reportable segments were gas & low carbon energy, oil production & operations, and customers & products. We reconcile these to our business activities and strategic pillars in the table below.

Strategic pillars	Gas & low carbon energy	Oil production & operations	Customers & products
Resilient hydrocarbons 	Gas regions Gas marketing and trading	Oil regions	Refining and oil trading Bioenergy ^c 
Convenience and mobility 			Convenience  Fuels EV charging  <i>Castrol</i> , aviation, B2B/midstream
Low carbon energy 	Renewables & power  Hydrogen 		

 Denotes transition growth  engine.

 2023 progress against our strategy, [pages 18-23](#)
Financial segment performance in 2023, [pages 35-47](#)



^c Includes customer-facing and midstream biofuels activities that form part of the bioenergy transition growth engine.

Chair's letter



bp had a strong operational performance in 2023 and its strategy remains well suited to the energy transition as it unfolds.



Dear fellow shareholders,

The past year has been positive in many respects, but it has been challenging too. From the ongoing complexity of the energy transition to economic uncertainty and market volatility. Add to that, across the world conflict has continued to touch many lives – and our thoughts are with all those who have been affected.

I will start with safety – both physical and psychological – because it always comes first at bp and is fundamental in the board's discussions and decision making.

On behalf of the board, I would like to recognize the work by bp's teams on operational safety – especially in achieving a reduction in the number of our most serious process safety incidents ([page 24](#)). However, three people died while working for bp and this is unacceptable.

Chief executive transition

If bp made progress on safety and had a strong operational and financial performance in 2023, there were challenges too, including the change in CEO in September. However, for me and for the board, the positive here was the effectiveness of our emergency succession planning, which allowed us to appoint Murray Auchincloss immediately as interim leader, and avoid a leadership vacuum. The robust and competitive recruitment process that followed, and his performance in that process, led the board to appoint him as CEO on a permanent basis at the beginning of 2024.

The board was in full agreement that Murray was the best candidate – but this was not just our view. We sought feedback from many stakeholders including our shareholders. It was very important to have this dialogue with so many of you and I want to thank you for your advice and support.

Murray has been at bp for more than two decades and he is deeply committed to the company and its people. He has a track record of performance, he knows how to bring out the best in a team, he was one of the chief architects of the strategy – and he knows the industry inside out. I say more about this transition on [page 82](#).

I am grateful to my fellow board members for their support in this process. Their constructive scrutiny of candidates allowed us to make a decision that, we believe, is right for bp.

Murray's strategic vision and focus on performance will help bp to unlock even more of our potential to compete, win and grow the value of bp. With her strong finance leadership experience, the subsequent appointment of Kate Thomson as chief financial officer in February gives the board great confidence in what can be achieved in 2024 and beyond.

Strategic direction

This leadership transition marks a new chapter for the company, but not a new strategic direction.

This year, it has become even clearer that the world needs a better, more balanced energy system. One that is secure, affordable and lower carbon. bp's strategy to go from an international oil company to an integrated energy company is designed both to help build a better system and to create value for shareholders while doing so.

bp had a strong operational performance in 2023 and its strategy remains well suited to the energy transition as it unfolds. The global move to a lower carbon energy system is not straightforward and presents both challenges and opportunities for an energy company like bp. With global markets remaining unpredictable, flexibility will be important and the strategy allows for this.

Role of culture

As bp's business activities evolve, the strength of its culture is paramount. It builds trust within bp's teams, encourages better performance and helps bp to attract and keep the best talent. A key aspect of this is its speak-up culture. bp encourages everyone to raise any concerns they have, including when they see something they think is inconsistent with the code of conduct or is unsafe or unlawful. bp tools allow them to do this safely, securely, in confidence and without fear of retaliation (see [page 72](#)).

Closing thanks

Every day, bp teams continue to go to work on rigs, in our refineries, in offices, at sea, at our retail sites★ and at our solar and wind installations – to mention just some of bp's many areas of operation. I want to thank them all for the considerable progress bp made in 2023.

I also want to thank Paula Rosput Reynolds and Sir John Sawers for their distinguished service. Over almost nine years, Paula has been a valued member of the board, including roles as chair of the remuneration committee (Remco) and senior independent director (SID). I am pleased that Amanda Blanc will take on the role of SID and, for an interim period, Tushar Morzaria the role of Remco chair, both with effect from the end of our annual general meeting in April 2024. Sir John's considerable work since 2015 includes supporting our safety and sustainability committee and our people and governance committee – and he has been highly regarded as chair of our geopolitical advisory council. Both will step down at the end of our annual general meeting in April 2024.

I will close with a final thank you. As I look back at this year, one of the highlights for me personally has been my meetings with you, my fellow shareholders – this year more than ever. In a time of internal change and external uncertainty, I want to thank you for your advice, your belief in bp – and for your trust and support throughout.



Helge Lund

Chair

8 March 2024

\$6.5bn

share buybacks announced from our 2023 surplus cash flow★

\$4.8bn

total dividends distributed to bp shareholders

Chief executive officer's letter

Dear fellow shareholders,

Thank you for your support over the last year, especially during the period of leadership transition. It is an honour to lead your company as CEO.

Our destination is unchanged. We're moving from an international oil company to an integrated energy company – IOC to IEC. We're investing in today's energy system, which is mainly oil and gas, while building out tomorrow's. And we are focused on growing the value of bp.

Nearest IFRS-equivalent measures

\$15.9bn

profit for the year 2023^a

17.8%

profit for the year 2023 attributable to bp shareholders divided by total equity at 31 December 2023^b

\$52.0bn

finance debt at the end of 2023^c

Safety first

Safety always comes first in everything we do. In 2023 three people lost their lives while working for bp – a contractor at bpx energy and two colleagues at our newly acquired TravelCenters of America business. We will never accept this as part of doing business. Our goal is the elimination of all fatalities, life-changing injuries and the most serious process safety incidents.

In 2023 we continued to make progress on process safety, but there is always more to do. We need to constantly reinforce and build on our operating culture across the business, rigorously applying our Operating Management System★ (OMS), embedding the Lifesaving Rules and living our Safety Leadership Principles. We are determined to keep building a safer bp.

A year of delivery

In 2023 we delivered a resilient operational and financial performance, with earnings (adjusted EBITDA★) of \$43.7 billion^a and operating cash flow★ of \$32.0 billion. This contributed to:

- Profit for the year attributable to bp shareholders of \$15.2 billion.
- Underlying replacement cost profit★ of \$13.8 billion.
- Return on average capital employed (ROACE)★ of 18.1%^b.
- Net debt★ reduced to \$20.9 billion^c – its lowest in a decade.

In turn this has allowed us to deliver competitive distributions to our shareholders:

- A 10% increase in the dividend per ordinary share (compared with the fourth quarter of 2022).
- \$6.5 billion in share buybacks from our 2023 surplus cash flow★.
- 17% reduction in issued share capital between the end of the first quarter of 2021 and 31 December 2023.

We continue to maintain a disciplined financial frame. The strength of our underlying financial performance, the disciplined approach to strengthening the balance sheet over the last few years, and our confidence in our drive towards 2025 gave us the capacity to update the financial frame earlier this year. As we announced in February 2024, we have tightened our capital expenditure★ guidance and enhanced our share buyback guidance, all while continuing to prioritize a strong balance sheet and strong investment grade credit rating.

Strategic progress

We are four years into our journey from IOC to IEC. Our strategy is based on the judgement that oil and gas will be needed for decades, but that a global shift to lower carbon energy is well underway. Since the pace of that shift is uncertain we will continue to be flexible and pragmatic, responding to changing demand and societal need, as we did in February 2023.

Our strategic progress in 2023 included:

- Oil and gas production growth of 2.6%, underpinned by strong growth from bpx energy and good management of our base business.
- Strong underlying year-on-year growth in our convenience gross margin★.
- EV charge points★ up 35% globally, energy sold up 150%.
- Biogas supply volumes★ up 80%, biofuels production★ up 18%.
- 21.1GW net growth in our renewables pipeline.
- 1.1mtpa net growth in our hydrogen pipeline★.
- Completed the planned implementation of methane measurement approach across our operated upstream oil and gas assets.

^a Adjusted EBITDA for the group is a non-IFRS measure and its nearest IFRS-equivalent measure is profit for the year 2023.

^b ROACE is a non-IFRS measure and its nearest IFRS measures of numerator and denominator are profit for the year 2023 attributable to bp shareholders of \$15.2 billion and total equity at the end of 2023 of \$85.5 billion respectively.

^c Net debt is a non-IFRS measure and its nearest IFRS-equivalent measure is finance debt at the end of 2023.

// As we drive to 2025, we will focus on executing to deliver value. //



Growing the value of bp

The last few years were about generating options. As we drive to 2025, we will focus on executing to deliver value. To guide that effort, we've set out six near-term priorities for bp. These are: to keep improving safety and reducing emissions. To make the company simpler and more focused. To become more efficient by putting technology and digitization at the heart of what we do. To progress our growth projects. To invest to maximize returns. All while maintaining our commitment to shareholder distributions.

bp is a great company. We have high-quality resources, outstanding science and engineering, strong partnerships, a world-class trading capability, and above all great people.


I believe very few companies can deliver what we offer. It's why I've never been more confident that we can win in this transition as a simpler, more focused and higher value bp.

Last but not least, thank you for your continued support, and a big thank you to the whole bp team for working incredibly hard in what was at times an uncertain year.

Murray Auchincloss
Chief executive officer
8 March 2024

Six priorities to grow the value of bp

1. Improve safety and reduce emissions.
2. Drive a focus in the business on activities that create the most value.
3. Deliver the next wave of efficiency – including technology and global capability hubs.
4. Deliver the next set of growth projects that provide growth through to 2030 and beyond.
5. Optimize ROACE through disciplined investment allocation.
6. Grow shareholder returns.

 Read more: [page 29](#)

The operating environment

bp operates across volatile energy markets. Here we discuss broader economic trends we have observed that influence our sector as a whole.

Through 2023 energy markets and prices were volatile as demand and supply flows continued to adjust to post-COVID-19 recoveries in demand and disruptions caused by the Russia-Ukraine war. Concerns about energy security and emissions continued to boost renewables as the world transitions towards a lower carbon future.

Economic growth was uneven across regions, as past increases in energy prices and steep rises in interest rates had varying effects in different countries.

Inflation rates fell significantly as the effects of past increases in food and energy prices on annual inflation eased. However, inflation across much of the world remained above central banks' targets, and a combination of squeezed incomes and the sharp tightening in monetary policy contributed to a below-average growth rate of around 3% for the global economy in 2023.

Growth in advanced economies was 1.5%^a, with weakness in the euro area contrasting with continued robust growth in the US. Emerging economies grew by around 4%^a, with China experiencing a rebound in growth to 5.2%^a as it emerged from COVID-19 lockdowns. Expansion of other emerging economies was dampened by higher interest rates and weak demand for their exports.

Oil

Oil prices were elevated across much of 2023, supported by a combination of robust oil demand growth and OPEC production cuts. Brent averaged \$83/bbl in 2023, down from \$101/bbl in the previous year. Global oil demand grew by 2.3mmb/d to 101.7mmb/d in 2023^b. The structural post-COVID-19 rebound of mobility (jet and gasoline), including a significant increase in Chinese oil demand of 1.7mmb/d^b, supported the well-above-trend growth.

A combination of official and voluntary cuts caused OPEC+ production to fall by 390kb/d^b in 2023, led by Saudi Arabia, which accounted for a 900kb/d contraction versus 2022^b. However, these reductions were offset by strong growth in non-OPEC+ supplies, which increased by 2.3mmb/d in 2023^b, with the US accounting for two-thirds of that increase^b.

Natural gas

A combination of a relatively warm European winter in 2022-23 and muted European gas demand caused European and Asian natural gas prices to fall early in 2023. Even so, European gas prices in 2023 were still double their 2015-2019 average level^c following the loss of the majority of Russian pipeline gas supply to the EU in 2022.

Asian liquefied natural gas (LNG) prices followed European gas prices lower in 2023, and moved back to trading predominantly at a premium to European prices in a reversal of the trend seen in 2022. The increased demand for LNG cargoes following the loss of Russian gas pipeline supply to the EU, combined with below-average growth in new LNG supply capacity in 2023, meant the global LNG market remained sensitive to supply risks, for example reacting strongly to potential outages in Australia.

In the US, Henry Hub (HH) gas prices averaged 61%^d lower than in 2022 as the growth in dry natural gas production outpaced demand. Lower HH prices incentivized coal-to-gas switching in the power sector, and heightened demand for cooling during summer heatwaves helped to avoid storage congestion. US gas storage stocks were 13%^e above historical average levels at the end of 2023. In response to the lower prices, the number of US gas rigs operating declined by a third from its peak in 2022^f.

Refining marker margin

We use a global refining marker margin (RMM)★ to track the refining margin environment. Global RMM fell from the record highs reached in 2022, when Russia's invasion of Ukraine caused significant disruption to refining operations and established trade flows. RMM values averaged \$25.8/bbl, \$7.3/bbl lower than in 2022^g, mainly due to elevated refinery output, including as a result of new capacity additions.

Power and renewables

Total solar and wind capacity additions in 2023 were expected to have reached around 380GW (on alternating current basis), a record increase historically, and more than 100GW higher than in 2022^h, with the increase driven mainly by China and solar photovoltaic (PV) deployment. The ongoing effects of the Russia-Ukraine war have increased countries' focus on their energy security, supporting greater deployment of renewable energy capacity.

Higher commodity prices, rises in interest rates and continued supply chain bottlenecks led to some increases in costs for solar and wind power in several countries. The offshore wind sector was particularly affected, and some projects were cancelled as their economic viability was eroded. However, we saw governments in many key offshore wind markets remain committed to achieving their offshore wind targets and developing their domestic offshore supply chains, providing continued support to the sector.

a IMF World Economic Outlook, October 2023 update.

b IEA Oil Market Report, January 2024.

c Platts Dutch TTF Day Ahead price.

d Platts Henry Hub cash price.

e Weekly Natural Gas Storage Report, EIA.

f Baker Hughes Rig Count.

g The RMM may not be representative of the margin achieved by bp in any period because of bp's particular refinery configurations and crude and product slates. In addition, the RMM does not include estimates of energy or other variable costs.

h IEA Renewables 2023 report; PV capacity additions converted from DC to AC basis by dividing by 1.25.

Hydrogen and carbon capture and storage

There continues to be widespread recognition of the need to use low carbon hydrogen and hydrogen-based fuels to help decarbonize harder-to-abate sectors of the global economy. However, high costs and the slow pace of enabling policy have caused increased challenges for the sector. While the sector-wide project pipeline for production of low-emissions hydrogen operational by 2030 has grown significantly, only a very small amount is either currently operational or under construction.

Green hydrogen★ costs have increased significantly, driven by higher renewable costs, elevated interest rates and competition for renewable electricity. Blue hydrogen★ costs, while also impacted by high inflation, are primarily driven by natural gas costs, which have subsided since the end of 2022.

Blue hydrogen costs are expected to be lower than green hydrogen costs in many countries through the rest of this decade and beyond. More subsidies are needed to close the gap between the higher costs of green hydrogen and customers' willingness to pay to switch away from incumbent fuels.

The global pipeline of carbon capture and storage (CCS) projectsⁱ continued to grow in 2023. But only a relatively small number of projects are actually operating or under construction and, based on past relatively low project completion rates, the current project pipeline appears insufficient to meet the CCS deployment rates consistent with Paris-consistent scenarios^j.

2.3%

year-on-year increase in global oil consumption in 2023^b

0.2%

estimated increase in global gas consumption in 2023^c

45%

expected year-on-year increase in annual solar and wind capacity additions in 2023^h

Market activity

	2023	2022
Global oil consumption ^b	101.7mmb/d	99.5mmb/d
Global oil production ^b	102.0mmb/d	100.1mmb/d
Natural gas consumption ^j	4,071bcm	4,061bcm
Natural gas production ^j	4,081bcm	4,094bcm
Dated Brent average ^k	\$82.64/bbl	\$101.32/bbl
West Texas Intermediate (WTI)★ average ^l	\$77.67/bbl	\$94.58/bbl
Urals average ^m	\$61.79/bbl	\$74.16/bbl
Henry Hub average ^d	\$2.53/mmBtu	\$6.41/mmBtu
Dutch Title Transfer Facility (TTF)★ average ^c	40.5 euros per MWh (\$12.8/mmBtu)	123.1 euros per MWh (\$37.7/mmBtu)
Japan-Korea (Asian) LNG average ⁿ	\$13.8/mmBtu	\$34.0/mmBtu
Refining marker margin ^o	\$25.8/bbl	\$33.1/bbl ^o

ⁱ Projects include capture projects either on a standalone basis or as part of a hub (sharing transport and storage facilities).

^j IEA Medium Term Gas Report 2023.

^k Refinitiv Data Service (Dated Brent spot price).

^l Refinitiv Data Service (West Texas Intermediate).

^m Refinitiv Data Service (Urals CIF Rotterdam).

ⁿ Platts JKM spot price.

^o The 2022 RMM reflects changes in bp's portfolio.

Energy outlook

The *bp Energy Outlook 2023* explored the trends and uncertainties surrounding the energy transition out to 2050. The Outlook helps inform bp's core beliefs about the energy transition.

The scenarios within it explore the possible implications of different judgements and assumptions concerning the nature of the energy transition. The uncertainty associated with the transition is substantial, and these scenarios are not predictions of what is likely to happen or what bp would like to see happen. We use the output from these scenarios to inform our strategic thinking.

New momentum —○—

New momentum captures the broad trajectory of the current global energy system. It places weight on the marked increase in global ambition for decarbonization in recent years, as well as on the manner and speed of decarbonization seen over the recent past. CO₂-equivalent (CO₂e) emissions from energy and industrial processes peak in the 2020s, and by 2050 are around 30% below 2019 levels. This scenario is not considered to be a Paris-consistent pathway^b.

Net zero —○—

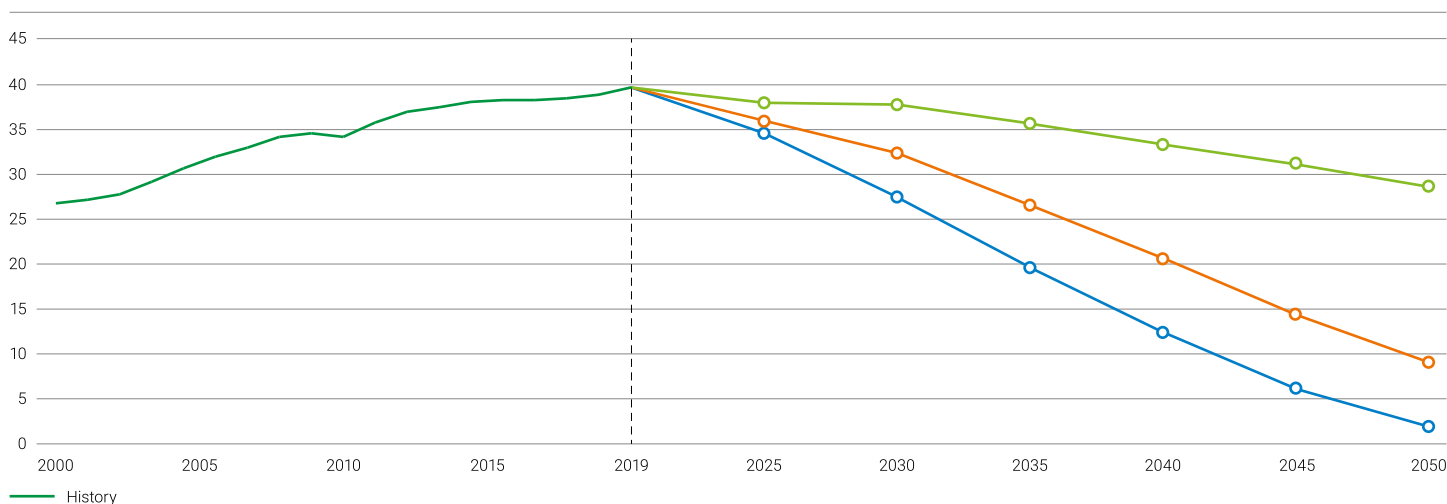
This scenario represents a shift in societal behaviour and preferences which drive gains in energy efficiency and the adoption of low carbon energy, such that global energy system CO₂e emissions fall by around 95% by 2050 relative to 2019 levels. This scenario is considered consistent with the Paris goals, broadly aligning with pathways maintaining global temperature rises below 1.5°C.

Accelerated —○—

Accelerated explores how the energy system might change if the world collectively takes action for CO₂e emissions to fall by around 75% by 2050 relative to 2019 levels. This scenario is considered consistent with the Paris goals, broadly aligning with well-below-2°C pathways.

Three scenarios to explore the energy transition

Carbon emissions Gt of CO₂e^a



^a Carbon emissions include CO₂ emissions from energy use, industrial processes, natural gas flaring and methane emissions from energy production.

^b For more information on Paris-consistent pathways, see [page 14](#).

bp Energy Outlook 2023 updates

In January 2023 we published the *bp Energy Outlook 2023 (2023 Outlook)*. This was updated from the 2022 *Outlook* to consider two major developments: the Russia-Ukraine war and the passing of the US Inflation Reduction Act (IRA).

The Russia-Ukraine war was judged likely to have a persistent effect on the future path of the global energy system, causing a change in the composition of global energy supplies, reducing economic growth, and increasing countries' focus on energy security. Also modelled was the IRA, which included a package of largely supply-side measures supporting low carbon energy sources and decarbonization technologies in the US.

In July 2023 we released an additional chapter of the *bp Energy Outlook*, 'How energy is used', which considers the outlook for the end uses of energy over the next 30 years. This chapter discusses energy use in the transport, industry and buildings sectors of the global economy.

It showed that, in all three scenarios outlined on [page 10](#), electricity increasingly replaces oil as the main energy carrier for light road vehicles in the transport sector. Heavier vehicles also electrify, although hydrogen and biomethane also play a role in some applications. Industry also gradually electrifies, but at a slower rate than transport due to the difficulties of electrifying high-temperature heat, with heavy industry also making use of low carbon hydrogen and bioenergy. In the buildings sector, growth in overall energy demand slows as space heating and cooking appliances become more efficient and energy conservation increases. The share of electricity in the energy used by buildings rises as fossil fuel boilers are replaced by heat pumps and emerging economies phase out traditional biomass.

We plan to continue to update the *bp Energy Outlook* in response to new developments in the energy transition.

 bp.com/energyoutlook

Scenarios for strategic decision making

We use scenarios to inform strategy, manage risk, and improve decision making.

Some scenarios start from today and project forward over a timeframe in which the current structure of the energy system helps to inform the pace and nature of the transition path. Others start in the future, breaking free from the inherent inertia in the energy system, and look back to the present from that new perspective.

In thinking about appropriate scenarios to inform our strategy, we used both approaches.

How scenarios inform our strategy


The use of scenarios described in the 2023 *Outlook*, and those from other organizations, aids our understanding of the energy transition and helps us to think about how different outcomes might impact our strategy.

The use of a broad range of scenarios to inform our strategy supports our efforts to make it robust and resilient to the range of uncertainty we face.

By considering various time horizons, we can identify key milestones or signposts which might emerge over the next five, 10 or 30 years and inform our view of the key sources of uncertainty affecting the global energy system.

We actively monitor for changes in the external environment and refresh or review the scenarios as needed in response to these signals, as we did with the Russia-Ukraine war and the impact of the IRA in the 2023 *Outlook*.

For the purposes of testing the resilience of our strategy to the range of uncertainty in the energy transition, we have used scenarios drawn from other credible sources such as the World Business Council for Sustainable Development (WBCSD) 'Climate Scenario Analysis Reference Approach for Companies in the Energy System', the Intergovernmental Panel on Climate Change (IPCC) and the International Energy Agency (IEA).

 [Read more on our resilience analysis and the outcome of that work on page 64](#)

How we create scenarios

We quantify a range of scenarios in the 2023 *Outlook* using our global energy modelling system. This comprises a suite of models to help us understand the supply and demand dynamics of the global energy system.

The modelling framework uses historical data based on the Energy Institute's Statistical Review of World Energy^c, the IEA's data and a range of other data sets.

Each scenario is determined by a set of key assumptions, including population and economic growth, pace of technological change, resource constraints and government policies. These are informed by expert views from external organizations including the United Nations, Oxford Economics and Rystad Energy. We benchmark our scenarios against external organizations including the IEA, the IPCC, IHS Markit and the Network for Greening the Financial System (NGFS).

The modelling techniques used vary by sector and include a combination of econometric modelling, least-cost optimization, adoption curves and consumer choice modelling.

^c Production of the Statistical Review of World Energy passed from bp to the Energy Institute in 2023. It is available online energyinst.org/statistical-review

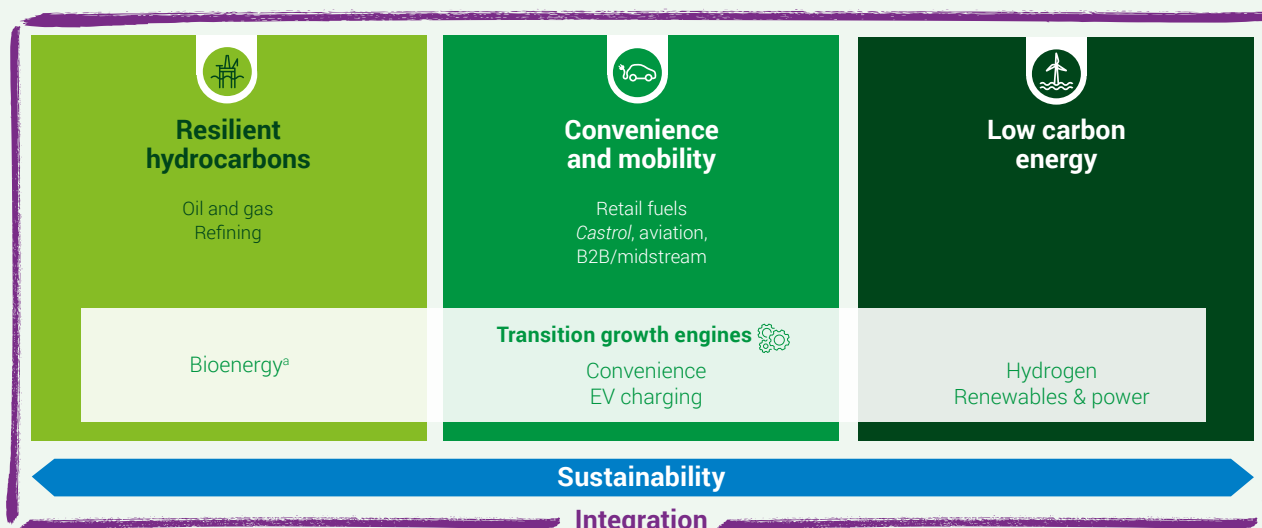
Our strategy in action

Transforming to an integrated energy company

We are investing in today's energy system – while helping build out tomorrow's. All in service of growing the value of bp.

Three strategic pillars

Our strategy is focused on three key areas of activity.



Sustainability

Embedded across our strategy is our sustainability frame, which sets out our aims for getting to net zero, improving people's lives and caring for our planet.

Integration

Our trading and shipping business continues to be at the core of integrating and optimizing across integrated value chains.

Growth to 2030^b

We aim to generate adjusted EBITDA★ of \$53-58 billion^c in 2030.

The aims underpinning this include:

- Growing adjusted EBITDA from resilient hydrocarbons to \$41-44 billion^c.
- More than doubling adjusted EBITDA versus 2019 in convenience and mobility to \$9-11 billion^c.
- Delivering \$2-3 billion^c of adjusted EBITDA from low carbon energy, while establishing the foundations of a material business for the decades to come.
- Delivering between \$10-12 billion^c of adjusted EBITDA from transition growth★ engines.



Examples of progress against our strategy in 2023, [pages 18-23](#)
Sustainability at bp, [page 48](#)

^a Bioenergy includes customer-facing and midstream biofuels activities that form part of convenience and mobility.

^b This does not form part of bp's Annual Report on Form 20-F as filed with the SEC.

^c At Brent \$70/bbl 2021 real and bp planning assumptions, and at the upper end of the expected capital expenditure★ range for the group, the relevant strategic pillar or transition growth engine as applicable.















Key

Denotes transition growth engine

TCFD Recommendations and Recommended Disclosures

Performance against our strategy

These are strategic targets and aims we have set against our strategic pillars out to 2025 and 2030.

	Metrics	2023 performance	2025 target	2030 aim
 Resilient hydrocarbons 	Upstream★ production ^d	2.3mmboe/d 2022 2.3mmboe/d	~2.3mmboe/d	~2mmboe/d
	bp-operated upstream plant reliability★	95.0% 2022 96%	96%	>96%
	Upstream unit production costs★	\$5.78/boe 2022 \$6.07/boe	~\$6/boe	—
	bp-operated refining availability★	96.1% 2022 94.5%	~96%	>96%
	Biofuels production★ 	32kb/d 2022 27kb/d	~50kb/d	~100kb/d
	Biogas supply volumes★ 	22mboe/d 2022 12mboe/d ^e	~40mboe/d	~70mboe/d
	LNG portfolio★	23Mtpa 2022 19Mtpa	25Mtpa	30Mtpa
 Convenience and mobility 	Strategic convenience sites★ 	2,850 2022 2,400	~3,000	~3,500
	Customer touchpoints★ per day 	>12 million 2022 ~12 million	>15 million	>20 million
	Electric vehicle charge points★ 	>29,000 2022 ~22,000	>40,000	>100,000
 Low carbon energy 	Hydrogen production (net) 	—	—	0.5-0.7Mtpa
	Developed renewables to final investment decision★ (net) 	6.2GW 2022 5.8GW	20GW	50GW
	Installed renewables capacity★ (net) 	2.7GW 2022 2.2GW	—	~10GW

^d Relative to 2019, we expect our hydrocarbon production to be around 25% lower by 2030 reflecting active management and high-grading of the portfolio, including divestment of non-core assets.

^e 2022 excludes Archaea Energy.

^f Reported to the nearest 50.

★ See glossary on page 373

Consistency with the Paris goals

Pursuing a strategy that is consistent with the Paris goals

What we mean by Paris-consistent

The 2019 CA100+ resolution★ requires us to disclose the strategy that the board considers in good faith to be consistent with the Paris goals.

When we refer to ‘consistency with Paris’ we consider this to mean consistency with the world meeting the temperature goal set out in Articles 2.1(a) and 4.1 of the Paris Agreement on Climate Change★.

The Paris goals, which we support, were reaffirmed under the UAE Consensus at COP28 in December 2023, by the Sharm el-Sheikh Implementation Plan agreed by the Parties at COP27 in November 2022, and the Glasgow Climate Pact agreed by the Parties at COP26 in November 2021.

We believe the world is on an unsustainable path, and the carbon budget to meet the Paris goals is running out.

bp’s strategy is informed by these considerations. It is designed to create long-term value for shareholders, while enabling delivery of our net zero ambition – to become a net zero company by 2050 or sooner, and to help the world get to net zero. It is designed to be resilient to the uncertainty of the energy transition across many different potential pathways, including various Paris-consistent pathways.

In the *bp Annual Report and Form 20-F 2021* we set out, based on **three key principles**, why the board considers our strategy to be consistent with the Paris goals. Here we set out, on the same three grounds, why the board continues to consider this to be the case.

Informed by Paris-consistent energy transition scenarios

The speed and nature of the energy transition is uncertain, and so we consider a range of scenarios from multiple sources including the *bp Energy Outlook* to inform our beliefs about the energy transition and to develop and test our strategic thinking. This helps to reinforce our confidence in the robustness and resilience of our strategy to the range of uncertainty we face.

We are confident that our approach is science-based. We see the Intergovernmental Panel on Climate Change (IPCC) as the most authoritative source of information on the science of climate change, and we use it and other sources to inform our strategy. The IPCC highlights that there are a range of global pathways by which the world can meet the Paris goals, with differing implications for regions, industry sectors and sources of energy.

The *bp Energy Outlook 2023* updated the 2022 Outlook to reflect the significant developments in global energy markets over the preceding year, including the possible impact of the Russia-Ukraine war on the pace of the energy transition. It includes three main scenarios – two of which we regard as Paris-consistent (Accelerated and Net Zero) – that we use to inform our strategy.

 [Energy outlook page 10 and bp.com/energyoutlook](#)

Strategic resilience

We believe our strategy positions bp for success and resilience in a Paris-consistent world – a world that is progressing on one of the many global trajectories considered to be Paris-consistent, and ultimately meets the Paris goals.

The strategy diversifies bp’s portfolio and business interests, reducing the risk that challenges facing a single business area might adversely affect bp’s strategic resilience.

In addition, within the inevitable constraints associated with factors such as long-term capital investments, contractual commitments and organizational capabilities at any given time, bp’s ability to maintain its strategic resilience rests, in part, on the governance used to keep the strategy and associated targets and aims under review in light of new information and changes in circumstances.

In our climate-related financial disclosures on [page 63](#), we describe how we have conducted an analysis to test our view of the resilience of our strategy to different climate-related scenarios, using the update on strategic progress presented in February 2023. This includes scenarios that are classified by the World Business Council for Sustainable Development (WBCSD) to be consistent with well-below 2°C and 1.5°C outcomes^a.

As further explained on [page 64](#), while the results of any such analysis must be treated with caution overall, this resilience test again reinforced our confidence in the continued resilience of our strategy to a wide range of ways in which the energy system could evolve throughout this decade, including in scenarios consistent with limiting temperature rise to 1.5°C.

The analysis also again highlighted that, while WBCSD data may point towards a broad directional correlation between oil price and the temperature goal with which scenarios are associated, there is considerable uncertainty as to the extent of this correlation. This is demonstrated by the range within, and overlap between, the prices indicated for each scenario family.

In the version of the WBCSD catalogue used for the analysis, the lowest oil price is associated with a 1.5°C scenario; however a number of the 1.5°C and well-below 2°C scenarios have oil prices in 2030 that are substantially higher. And when compared to bp’s own central oil price case planning assumption for 2030, the oil price in a number of the well-below 2°C scenarios is also higher, supporting our view that our oil price planning assumption is broadly consistent with Paris-consistent scenarios.

^a Our 2023 analysis used data from the WBCSD Climate Scenario Catalogue version 2.0, published on 31 March 2023 and downloaded on 1 February 2024, which includes scenarios considered to be consistent with well-below 2°C and 1.5°C outcomes.

Contributes to net zero

We believe that our strategy enables bp to make a positive contribution to the world achieving net zero greenhouse gas (GHG) emissions and meeting the Paris goals – outcomes which we believe to be in the best interests of bp as well as beneficial to society generally.

We see huge opportunity in the energy transition – the transformation of the energy system that we believe to be a necessary feature of the world's efforts to meet the Paris goals. There are many ways a company at the heart of the energy sector can make a meaningful contribution to the world getting to net zero. In addition to investing in and scaling our own lower carbon businesses, these include: policy advocacy and seeking to use the company's influence with trade associations that conduct climate-related advocacy; low carbon collaboration and support for others in their own decarbonization efforts (such as cities and corporates); and making venturing investments in promising new businesses and technologies that have the potential to contribute to the energy transition. bp seeks to advance these areas through our aims in support of our net zero ambition, including aims 6-10 which are focused on activities which can help the world get to net zero, see [page 50](#).

And, as we pursue our strategy, our diversification and the growth of our low carbon businesses may also contribute to helping the world get to net zero. Some ways of contributing are more readily measured by quantitative metrics than others – but all can be important, whether or not they translate into GHG reductions for bp. For example, in Teesside in the UK, we continue to work to advance components of the East Coast Cluster – a vision for decarbonizing local heavy industries at scale, with CO₂ from their emissions taken offshore for permanent storage through Northern Endurance Partnership's carbon capture and storage facilities.

In 2023 two bp-led lower carbon projects, Net Zero Teesside Power and H2Teesside, part of the East Coast Cluster, were chosen to proceed to negotiations for government support. bp and Equinor were awarded a carbon storage licence by the North Sea Transition Authority, which will enable the development of further CO₂ storage sites. Together with Equinor we now hold four storage licences on behalf of the Northern Endurance Partnership. There is potential to store up to 23 million tonnes of CO₂ a year in the southern North Sea by 2035.

As a further illustration, in terms of low carbon investment★, by 2030 we aim to increase to 50GW the amount of developed renewables to FID★, supported by the capital expenditure★ we plan to invest in our transition growth★ engines.

This aim supports the Paris goals by increasing the low carbon options available to energy consumers. However, it does not reduce our Scope 1, 2 or 3 emissions. And it may not result in a decrease in the overall carbon intensity of bp's sold products, because that is dependent on the extent to which we – rather than another party such as a buyer of the developed project – market the resulting renewable power, which is a commercial consideration. Where we do not directly sell that power, our development of the renewables is effectively 'invisible' in terms of our GHG metrics.

As another example, our aim 6 is to more actively advocate for policies that support net zero, including carbon pricing. Helping policymakers to design and put in place low carbon policies that support the transition to net zero can help deliver our strategy and capitalize on the huge opportunities associated with achieving the Paris goals, but the benefit of such advocacy, if successful, extends well beyond any implications for bp's own GHG metrics. That is because well-designed low carbon policies can also advance the decarbonization of a whole economy – something potentially of far greater impact than anything a single company can achieve through its own portfolio. We publish examples of our activity in support of aim 6 online at bp.com/advocacyactivities.

Responding to increased shareholder interest in Paris consistency

In 2019 the board recommended that shareholders support a special resolution requisitioned by Climate Action 100+ (CA100+) on climate change disclosures. The CA100+ resolution passed with more than 99% of votes cast. This is the fifth year we have included responses throughout the annual report and we have adopted a similar approach to previous years.

The CA100+ resolution, which includes safeguards such as protections for commercially confidential and competitively sensitive information, is on [page 373](#). Key terms related to this resolution response are indicated with ★ and defined in the glossary on [page 373](#). These should be reviewed with the following information.

Element of the CA100+ resolution	Related content	Where
Strategy that the board considers in good faith to be consistent with the Paris goals.	Our strategy and business model Pursuing a strategy that is consistent with the Paris goals	12 & 16 14
How bp evaluates each new material capex investment★ for consistency with the Paris goals and other outcomes relevant to bp strategy.	Our investment process	30
Disclosure of bp's principal metrics and relevant targets or goals over the short, medium and long term, consistent with the Paris goals.	Key performance indicators Sustainability: net zero targets and aims See 'TCFD Metrics & Targets' for an overview	24 49 68
Anticipated levels of investment in: (i) Oil and gas resources and reserves. (ii) Other energy sources and technologies.	Financial frame: disciplined investment allocation Investment in non-oil and gas	28 31
bp's targets to promote operational GHG reductions.	Sustainability: net zero targets and aims (in table)	49
Estimated carbon intensity of bp's energy products and progress over time.	Sustainability: aim 3	49
Any linkage between above targets and executive pay remuneration.	Directors' remuneration report 2023 annual bonus outcome 2024 remuneration policy	105 114 119

Our business model

What makes us *different*

We believe we have the scale, global presence and expertise to navigate complex markets and manage increasingly integrated energy systems.

Our purpose

Guiding what we do and how we operate, our purpose is:

Reimagining energy
for people and our planet

Our strategy

Transforming to an integrated energy company.



Resilient
hydrocarbons



Convenience
and mobility



Low carbon
energy

📖 Strategy, **page 12**
Creating value through integration, **pages 18, 20 and 22**

People and resources^a

These are some of the people and resources in our business model that support how we create and preserve value for our stakeholders.

Incumbent capability

~10,900

engineers

📖 Sustainability at bp, **page 48**

~800

employees on graduate
schemes

Research and development

\$298m

invested in research
and development

📖 **page 197**

~2,500

granted and pending patent
applications held by bp and
its subsidiaries

Energy sector experience

>110 years

in energy

📖 The operating environment, **page 8**

Financial resources

\$16.3bn

capital expenditure★

📖 Group performance, **page 35**

\$32.0bn

operating cash flow★

Energy resources

6,759mmboe

proved hydrocarbon reserves
for the group^b

📖 Gas & low carbon energy, **page 39**
Supplementary information on oil and natural gas, **page 247**

6.2GW

developed renewables
to FID★ (net)

^a Data as at 31 December 2023.
^b On a combined basis of subsidiaries and equity-accounted entities. See page 345 for more information on bp's oil and gas reserves including the impact of events occurring after the end of the reporting period.

Our business groups

This is how we are organized to deliver our strategy and deliver long-term shareholder value. Our three business groups are supported by four integrators to facilitate collaboration and unlock value (innovation & engineering; regions, corporates & solutions; strategy, sustainability & ventures; and trading & shipping), and three teams that serve as enablers of business delivery (finance; legal; and people & culture).

Gas & low carbon energy

Integrating our existing natural gas capabilities with power trading and growth in low carbon businesses and markets, including wind, solar, hydrogen and carbon capture and storage.

 **page 39**

Production & operations

The operational heart of bp, producing the hydrocarbon energy and products the world wants and needs – safely and efficiently.

 **page 42**

Customers & products

Focusing on customers as the driving force for innovating new business models and service platforms to deliver the convenience, mobility and energy products and services of today and the future.

 **page 44**

Alignment with our strategic pillars



 How we reconcile our strategic pillars to our reporting segments and business groups, **page 3**

Delivering value for stakeholders^a

We are committed to delivering long-term value for stakeholders.

Investors and shareholders

Includes our institutional and retail investors.

\$4.8bn

total dividends distributed to bp shareholders
(2022 \$4.4bn)

Customers

Including end-use consumers, B2B customers, and distributors.

>12m

customer touchpoints★ per day
(2022 ~12m)

Employees

Our 87,800 people worldwide.

73%

employee engagement score from the 'Pulse annual' employee survey
(2022 70%)

 **page 71**

Governments and regulators

In the countries where we have existing or planned activities.

\$11.9bn

corporate income tax and production tax paid
(2022 \$12.5bn)

 **bp.com/tax**

Society

The people, businesses and environment in the communities where we work.

\$117m

supporting additional initiatives to benefit communities
(2022 \$93m)

 **page 53**

Partners and suppliers

Includes relationships with academia, industry and cities.

\$152bn

in payments to suppliers for goods and services
(2022 \$174bn)

 **page 70**

★ See glossary on **page 373**

Progress against our strategy

Resilient hydrocarbons



A resilient oil and gas business is an essential part of our transformation to an integrated energy company. Our focus remains on safely delivering value, maximizing returns and cash flow, and reducing emissions.

Transition growth★ engines

Bioenergy: Demand from our customers for bioenergy is growing. That's why we are working to scale up our established bioenergy business. We are increasing our biogas supply, growing our biofuels production★, helping our customers decarbonize and expanding our trading capabilities.

Renewable gas at Archaea Energy

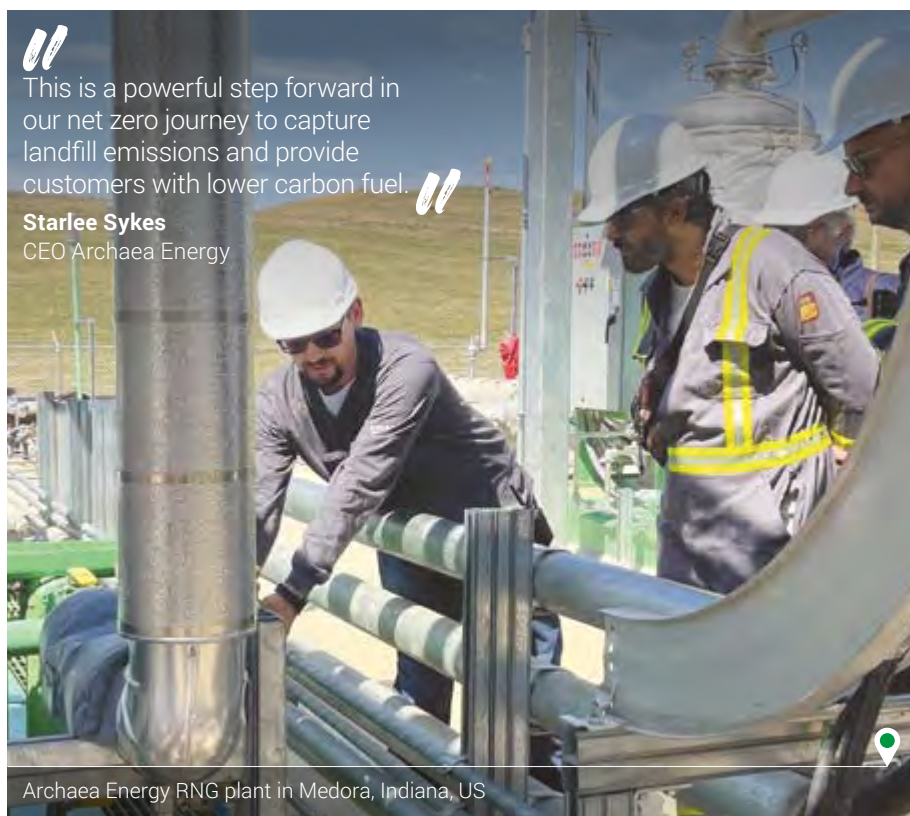
We started up our first Archaea Modular Design (AMD) plant in Indiana, US in October 2023. AMD allows the plant to be built on skids with interchangeable components for faster builds.

The plant converts landfill gas (a form of greenhouse gas) by capturing it from landfill and converting it to electricity, heat or renewable natural gas (RNG). This helps to improve local air quality and provide lower carbon fuel for homes, businesses and transportation.

It is the first of 15-20 new plants we aim to bring online per year through 2025, with Archaea Energy production volumes contributing to our 2025 target of around 40mboe/d of biogas supply volumes★ (see [page 13](#)).

3,200scfm

Medora RNG plant processing capacity



// This is a powerful step forward in our net zero journey to capture landfill emissions and provide customers with lower carbon fuel. //

Starlee Sykes
CEO Archaea Energy

Archaea Energy RNG plant in Medora, Indiana, US

Bingo goes online

Our onshore oil and gas business, bpx energy, invested \$1.4 billion in Texas's Permian Basin in 2023. In August we completed our second central processing facility, Bingo. This follows Grand Slam, which came online in 2021.



Bingo in the Permian Basin, Texas, US

Methane certification

We became the first energy major to verify the methane intensity★ of its entire US onshore operated natural gas portfolio, with bpx energy gaining certification from MiQ, an independent not-for-profit, in March 2023.

The certification is independently audited and gives us a better understanding of methane intensity and source emissions, helping us develop plans to reduce emissions further.

 Our aim 4 progress, [page 49](#)

Major project start-ups

We started up four major oil and gas production projects in 2023.

We expect these projects to contribute more than 50% towards our target of around 200mboe/d from ten new major projects by 2025.

Mad Dog Phase 2, US

We started up our fifth bp-operated production platform, Argos, in the Gulf of Mexico in April 2023. Our new facility is helping to increase production in the Gulf and has the capacity to produce up to 140mmboe/d gross.

KG D6 MJ, India

In partnership with Reliance Industries Limited, we announced first production from the MJ field in June 2023. This is the third deepwater development brought into production in block KG D6 off the east coast of India. Together, the three fields in KG D6 account for around one third of India's current domestic gas production and meet approximately 15% of the country's gas demand.

Tangguh expansion, Indonesia

Tangguh's Train 3 started up in September 2023. Its production is supporting the growth in supply of LNG, adding around 3.8Mtpa of gross producing capacity to the existing 7.6Mtpa facility, bringing production capacity to around 11.4Mtpa.

Seagull, UK

In November 2023 we announced first production from the Seagull oil and gas field in the UK North Sea in partnership with Neptune Energy and JAPEx. The project is the first subsea tieback to the Eastern Trough Area Project (ETAP) in 20 years.



bp has been operating in the North Sea for nearly 60 years, delivering a reliable flow of energy, supporting thousands of jobs and a world-class supply chain. We plan to keep doing this by investing in our existing oil and gas infrastructure, like at ETAP.



Doris Reiter

SVP, bp North Sea



Seagull facility in the UK North Sea



Cherry Point refinery, Washington, US

Transforming our refineries

In refining, we expect to drive greater competitiveness and value through our digitization and business improvement plans, including maintaining Solomon first quartile net cash margin.

At our Cherry Point refinery in Washington, we brought online a new vacuum tower and cooling water tower. These upgrades are designed to reduce the refinery's emissions, as well as helping to improve refinery availability and save maintenance costs.

In addition, we plan to invest in our refineries and to target more than double our biofuels co-processing volumes to around 20,000 barrels per day in 2025.

Futureproofing Trinidad

In Trinidad, we restructured the ownership and commercial framework of the Atlantic LNG joint venture★ with its partners Shell and the National Gas Company of Trinidad and Tobago. The restructuring helps provide the certainty required for sanctioning the next wave of upstream★ gas projects and secures the long term LNG equity offtake for shareholders including bp.

Progress against our strategy continued

Convenience and mobility



By bringing our capabilities and reach in convenience together with EV charging, we aim to provide customer-focused, lower carbon transport solutions over time. We are also focused on growth in our differentiated fuels, *Castrol*, aviation, B2B and midstream including biofuels businesses.

Transition growth★ engines

Convenience: In this growing sector, our scale, premium locations, leading brands and strategic partnerships enable us to deliver differentiated offers for our customers. We have a proven track record of resilient gross margin growth against a challenging backdrop, which underpins confidence in delivery of our strategy. We will continue to expand our footprint, which the *TravelCenters of America* acquisition has accelerated.

EV charging: This sector is moving at pace, and we see significant value through our focus on fast★ charging to on-the-go customers. We are focused on the largest EV car parcs across the US, UK, China and Germany, and our joint venture★ partnerships in India and Iberia.

US retail boost

We completed the purchase of *TravelCenters of America* in May 2023.

The deal adds a network of around 290 retail sites★ on major highways across the US. It is expected to almost double^a our global convenience gross margin★, supporting the growth of our convenience and mobility business.

^a On an annualized basis when compared with 2022.



By integrating *bp pulse*, our fast-growing EV charging business, along with biofuels and renewable natural gas businesses – and in time, hydrogen – we aim to respond to our customers' changing mobility needs.



Emma Delaney
EVP customers & products



TravelCenters of America retail site in Ohio, US

Growing convenience

We strengthened our strategic convenience partnerships and customer offers in 2023.

REWE To Go: bp and Lekkerland extended their successful partnership to continue to deliver *REWE To Go* stores at *Aral* retail sites until 2028.

This is bp's largest European convenience supply agreement and brings together Germany's largest forecourt brand with one of the country's leading convenience specialists in support of bp's convenience transition growth engine delivery.

Auchan, Poland: We signed an agreement with leading convenience retailer, Auchan, with plans to add more than 100 stores to our retail network. The partnership supports our aim to grow our strategic convenience sites★ and convenience gross margin globally.

BPme: We strengthened our BPme Rewards loyalty scheme with the launch of loyalty pricing, giving customers exclusive discounts on retail store products at around 300 bp-owned retail sites across the UK.



bp retail site in West Sussex, UK

Accelerating EV

We expanded our EV charging network in 2023, and demonstrated profitability in our on-the-go business in Germany and our joint venture, bp Xiajou in China.

In the US: We announced a \$500 million investment in the US over the next two to three years. As part of this, *bp pulse* entered into an agreement with Tesla for the future purchase of \$100 million of ultra-fast★ chargers that will be installed across our *bp pulse* network in the US. The first time Tesla's ultra-fast chargers will be deployed on an independent EV charging network.

In the UK: We opened the UK's largest public EV charging hub in partnership with The EV Network and NEC Group in September. The *Gigahub* is located at the heart of the UK motorway network at the NEC campus in the West Midlands, with capacity to charge up to 180 EVs simultaneously.

In Iberia: In December 2023 we formed a joint venture with Iberdrola to accelerate EV charging infrastructure roll-out in Spain and Portugal. The joint venture plans to invest up to €1 billion and install 5,000 fast EV charge points★ by 2025 and around 11,700 by 2030.

~150%

GWh increase in energy sales volume since 2022



bp pulse EV charging at the *Gigahub* in Birmingham, UK

Leading in EV-fluids

In *Castrol*, our leading position in advanced EV-fluids was further strengthened in 2023. Three out of four of the world's major vehicle manufacturers use *Castrol ON* products as part of their factory fill^b.

And we are investing in our technology centres including a new EV laboratory in Shanghai, China and a new laboratory in New Jersey, US.

^b Based on GlobalData report for 2023 for top 20 selling global OEMs (total new vehicles sales).

SAF in action

We are aiming to be a leading supplier of sustainable aviation fuel (SAF), as we look to help decarbonize the aviation sector.

Air bp made its first SAF sale in March 2023. The International Sustainability and Carbon Certification (ISCC) EU SAF was produced through co-processing at our Castellón refinery in Spain. It was first used on a flight from Zaragoza, Spain to North America with LATAM Cargo Chile. This is a milestone in the development of using existing refineries to meet SAF demand produced from sustainable feedstocks.

Supplied by bp and Virent, the first 100% SAF-fuelled commercial transatlantic flight flew from London Heathrow to JFK airport in New York in November 2023.



Virgin Atlantic flight before take-off at London Heathrow airport, UK



Low carbon energy

We plan to create integrated regional hubs, enabled by two of our transition growth engines in the hydrogen and renewables & power sectors.

Transition growth★ engines

Hydrogen: Initially we plan to supply our own refineries – decarbonizing our own operations – as well as sell to local third parties, before increasing production to turn these into regional hubs. As markets evolve, we plan to invest in building global export hubs for hydrogen and hydrogen derivatives such as ammonia. Here, our experience of moving gas through pipelines, integrating renewables into our portfolio and transporting LNG on water will accelerate our route to market for hydrogen and ammonia.

Renewables & power: We are focusing our investment in renewables on opportunities where we can create integration value and enhance returns. We are evaluating options to build a renewables portfolio in green hydrogen★, e-fuels, EV charging and power trading. This includes building a global platform in offshore wind, enabled by our capabilities in large-scale, complex offshore projects, as well as our planned acquisition of Lightsource bp. By combining our power trading and marketing activities into this growth engine, we can integrate through the value chain from generation to customer, enhancing returns, building market position and supporting the decarbonization of electricity.

Transforming Teesside

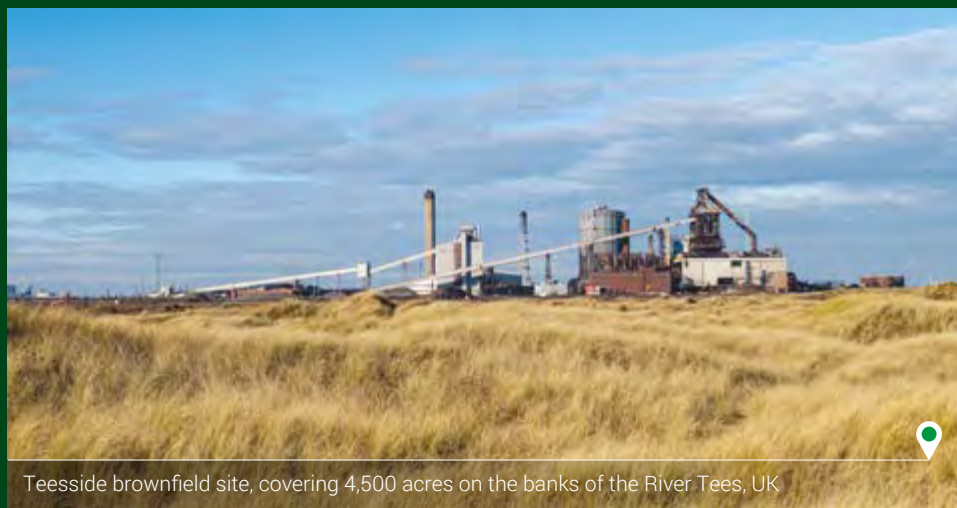
In 2023 two bp-led lower carbon projects, Net Zero Teesside Power and H2Teesside, part of the East Coast Cluster, were chosen to proceed to negotiations for government support.

bp and Equinor were awarded a carbon storage licence by the North Sea Transition Authority, which will enable the development of further CO₂ storage sites. Together with Equinor we now hold four storage licences on behalf of the Northern Endurance Partnership. There is potential to store up to 23 million tonnes of CO₂ a year in the southern North Sea by 2035.

“This is a huge step forward for these transformative projects, which will help drive the region's low carbon revolution and deliver the UK's net zero targets.”

Louise Kingham

UK head of country and SVP Europe



Teesside brownfield site, covering 4,500 acres on the banks of the River Tees, UK

Peacock Solar construction starts

We started construction of our 187MW solar project in Texas, US, in mid-2023. The project is planned to come online in the second half of 2024. At full capacity, the installation is expected to generate enough electricity annually to power the equivalent of 34,000 homes.

Peacock will sell all of the electricity it generates under a long-term power purchase agreement, and will also be home to a range of agricultural and biodiversity activities.

This supports our aim to develop 50GW of renewable energy capacity to FID★ by 2030.



Peacock Solar in Texas, US

Lightsource bp acquisition

In November 2023 we agreed to acquire the remaining 50.03% interest in Lightsource bp which we did not already own.

Subject to regulatory approvals, the deal is expected to close in the second half of 2024.

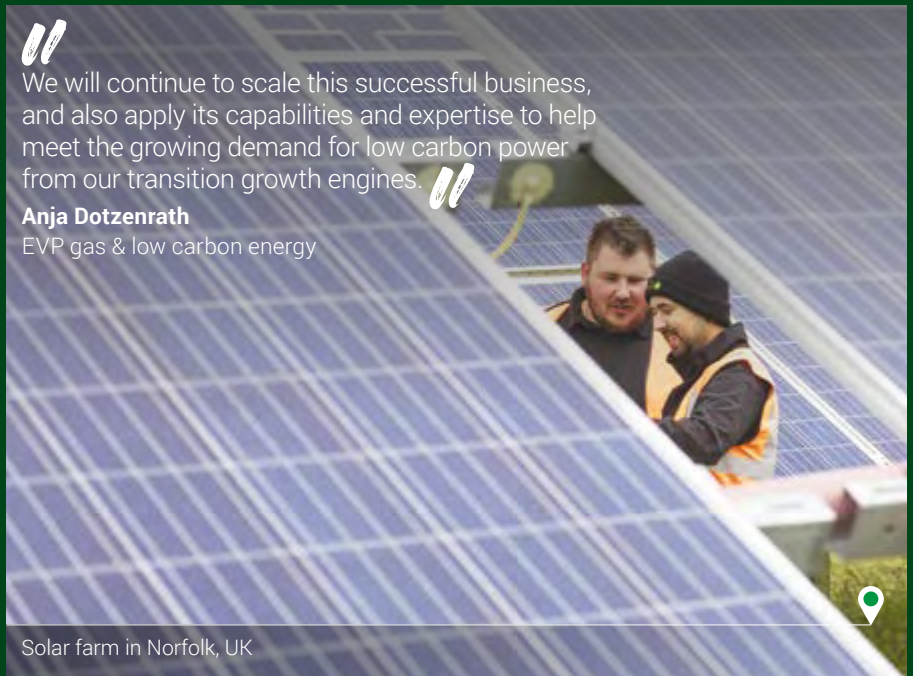
The acquisition aims to scale up Lightsource bp and create additional value by applying complementary capabilities and strengths to help meet the growing demand for low carbon power from our transition growth engines.



We will continue to scale this successful business, and also apply its capabilities and expertise to help meet the growing demand for low carbon power from our transition growth engines.

Anja Dotzenrath

EVP gas & low carbon energy



Solar farm in Norfolk, UK

Helping Japan decarbonize

We signed a memorandum of understanding (MOU) with Japan's second-largest power company, Chubu Electric, to explore opportunities for decarbonization in the country and wider Asia region.

The MOU includes exploring the feasibility of collecting, aggregating, using and transporting CO₂ from major emitters in Japan's Nagoya port to storage sites through a carbon capture and storage hub.

This could help decarbonize a range of the port's carbon-intensive industrial businesses, which account for 3% of Japan's total emissions, supporting its ambition to cut emissions by 35% by 2030.

Hydrogen in Spain

In 2023 we launched plans for a green hydrogen★ cluster called HyVal, at our Castellón refinery in the Valencia region of Spain.

Wind bid Wins

We have been successful in two offshore wind bids in Germany – our first in continental Europe.

We will lead the development, construction and operation of these projects, and expect to connect them to the grid by the end of 2030.

Integration opportunity: We expect the renewable power from these projects will support our green hydrogen and biofuels production★, electric mobility growth and refinery decarbonization, as well as wider industry decarbonization in Germany.

4GW

total potential generating capacity from the two sites



This project is a substantial upgrade for the wind farm and another investment in bp's low carbon energy future.

Orlando Alvarez

Chair and president, bp America



Fowler Ridge wind farm in Indiana, US

Upgrading Fowler Ridge

We completed a major technology upgrade at our Fowler Ridge 1 wind farm in Indiana, US. The upgrade will help the site produce more power, more efficiently and with greater reliability. The new Vestas turbines are expected to produce up to 40% more energy.

The decommissioned blades will be recycled, avoiding up to 1,500 tonnes of metal going to landfill.

Key performance indicators

We assess the performance of the group across a wide range of measures and indicators that are consistent with our strategy.

Our key performance indicators (KPIs) provide a balanced set of metrics that give emphasis to both financial and non-financial measures. These help the board and leadership team assess bp's performance. Our leadership team uses these measures to evaluate operating performance and inform its financial, strategic and operating decisions.

Remuneration

To help align the focus of our executive management and executive directors with the interests of our shareholders, certain measures are used for executive remuneration.

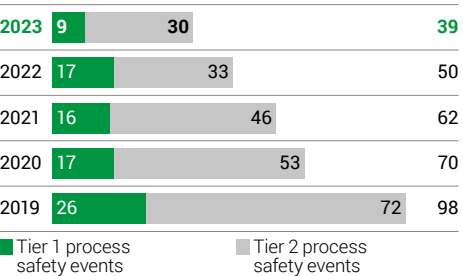
Directors' remuneration report, page 105

Key

- Used for remuneration policy
- Performance against strategy, page 13
- TCFD Recommendations and Recommended Disclosures

Safety

Tier 1 and 2 process safety events

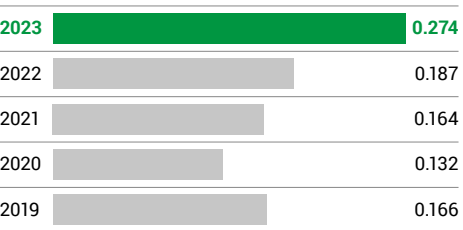


We track tier 1 and tier 2 events and report the aggregated outcome. Tier 1 events are losses of primary containment from a process of greatest consequence – causing harm to a member of the workforce, damage to equipment from a fire or explosion, a community impact or exceeding defined quantities (per API RP 754 tier 1 definitions). Tier 2 events are those of lesser consequence (per API RP 754 tier 2 definitions).

2023 performance

Our combined process safety events have generally decreased over the last 11 years, apart from in 2019. This downward trend continued in 2023, with 11 fewer (22%) reported than in 2022.

Reported recordable injury frequency



Reported recordable injury frequency (RIF) measures the number of reported work-related employee and contractor incidents that result in a fatality or injury per 200,000 hours worked.

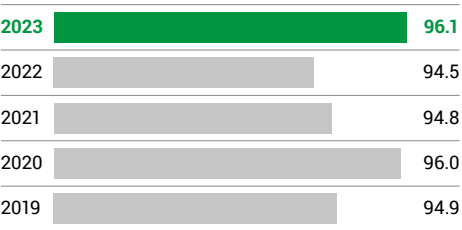
2023 performance

Our recordable injury frequency (RIF) increased by 47%. A rise in the number of injuries in North America (which we attribute in part to the onboarding of retail operations we acquired including *Thorntons*) contributed to this increase.

Safety, page 69

Sustainable operations

Refining availability (%)



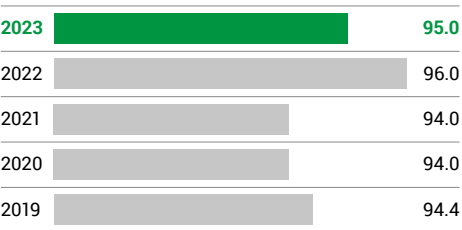
bp-operated refining availability represents Solomon Associates' operational availability for bp-operated refineries. The measure shows the percentage of the year that a unit is available for processing after subtracting the annualized time lost due to turnaround activity and all planned mechanical, process and regulatory downtime.

Refining availability is an important indicator of the operational performance of our downstream businesses.

2023 performance

bp-operated refining availability increased to 96.1% in 2023, due to a lower level of unplanned maintenance activity.

Upstream plant reliability (%)



bp-operated upstream plant reliability is calculated taking 100% less the ratio of total unplanned plant deferrals divided by installed production capacity, excluding non-operated assets and bpx energy. Unplanned plant deferrals are associated with the topside plant and, where applicable, the subsea equipment (excluding wells and reservoirs). Unplanned plant deferrals include breakdowns, which does not include Gulf of Mexico weather-related downtime.

2023 performance

Upstream plant reliability in 2023 was slightly lower than in 2022, mainly due to equipment failures associated with major project ramp-ups.

a At the time of publication, the recently acquired US-based Archaea Energy and TravelCenters of America safety reporting processes were still being integrated into bp's safety reporting processes and as such, Archaea Energy and TravelCenters of America safety performance data is not included in reported data for 2023.

b Includes incidents occurring within bp's operational HSSE reporting boundary. That boundary includes bp's own operated facilities and joint ventures where bp is the operator. In some cases, we may also provide information about some of our joint venture activities where we are not the operator.

Major project delivery

2023		4
2022		2
2021		7
2020		4
2019		5

We monitor the progress of our major projects★ to gauge whether we are delivering our core pipeline of projects under construction on time.

Projects take many years to complete, requiring differing amounts of resource, so a smooth or increasing trend should not be anticipated.

Major projects are defined as those with a bp net investment of at least \$250 million, or considered to be of strategic importance to bp, or of a high degree of complexity.

2023 performance

We started up four major oil and gas projects in 2023 – Mad Dog Phase 2 in the US Gulf of Mexico; KG D6 MJ off the east coast of India; the Tangguh expansion in Indonesia; and Seagull in the UK North Sea.

Upstream unit production costs (\$/boe) ●

2023		5.78
2022		6.07
2021		6.82
2020		6.39
2019		6.84

The upstream unit production cost is calculated as production cost divided by units of production. Production cost does not include ad valorem and severance taxes. Units of production are barrels for liquids★ and thousands of cubic feet for gas. Amounts disclosed are for bp subsidiaries only and do not include bp's share of equity-accounted entities.

2023 performance

Unit production costs decreased, in line with our 2025 target, mainly reflecting the impact of portfolio changes.

Financial

Underlying replacement cost (RC) profit (\$ billion)

2023		15.2
2022		13.8
2021		7.6
2020		12.8
2019		(20.3)
		(5.7)
2019		4.0
		10.0

■ Profit (loss) for the year attributable to bp shareholders
■ Underlying RC profit for the year (non-IFRS)

Underlying RC profit★ (non-IFRS) is a useful measure for investors because it is one of the profitability measures bp management uses to assess performance. It assists management in understanding the underlying trends in operational performance on a comparable year-on-year basis. It reflects the replacement cost of inventories sold in the period and is arrived at by adjusting for inventory holding gains and losses★, net impact of adjusting items★ and related taxation from profit or loss attributable to bp shareholders.

2023 performance

Profit for 2023 attributable to bp shareholders includes pre-tax net impairment charges of \$5.7 billion. Reduction in the underlying RC profit reflects lower realizations★, the impact of portfolio changes, the impact of lower refining margins and a lower oil trading performance.

Operating cash flow (\$ billion)

2023		32.0
2022		40.9
2021		23.6
2020		12.2
2019		25.8

Operating cash flow★ is net cash flow provided by operating activities, as reported in the group cash flow statement.

2023 performance

2023 primarily reflects lower realizations, refining margins and oil trading performance and the impact of portfolio changes.

Total shareholder return (%) ●

2023		5.9
2022		2.6
2021		36.9
2020		50.1
2021		36.4
2020		36.4
2020		(41.4)
2020		(41.7)
2019		5.8
2019		1.1

■ ADS basis
■ Ordinary share basis

Total shareholder return (TSR) represents the change in value of a bp shareholding over a calendar year (American Deposit Share (ADS) in USD, ordinary share in GBP). It assumes that dividends are reinvested to purchase additional shares at the closing price on the ex-dividend date.

2023 performance

TSR performance reflects increased dividends in 2023.

Return on average capital employed (%) ●

2023		17.8
2022		18.1
2022		(3.0)
2022		30.5
2021		8.4
2021		13.3
2020		(23.7)
2020		(3.8)
2019		4.0
2019		8.9

■ Profit (loss) for the period attributable to bp shareholders divided by total equity
■ ROACE (non-IFRS)

Return on average capital employed (ROACE)★ (non-IFRS) gives an indication of a company's capital efficiency, dividing the underlying RC profit (loss) after adding back non-controlling interest and interest expense net of tax by the average of the beginning and ending balances of total equity plus finance debt, excluding cash and cash equivalents and goodwill as presented on the group balance sheet over the periods presented.

2023 performance



Profit for 2023 attributable to bp shareholders was \$15.2 billion and total equity at 31 December 2023 was \$85.5 billion. ROACE for 2023 reflected lower realizations, the impact of portfolio changes, the impact of lower refining margins and a lower oil trading performance.

Key performance indicators continued

Non-financial

Greenhouse gas emissions^{abcde} – operational control (MtCO₂e) **T**

2023	31.1	1.0	32.1
2022	30.4	1.4	31.9
2021	33.2	2.4	35.6
2020	41.7	3.8	45.5
2019	49.2	5.2	54.5

 Scope 1 (direct) emissions
  Scope 2 (indirect) emissions

We report Scope 1 and Scope 2 greenhouse gas (GHG) emissions material to our business on a carbon dioxide-equivalent basis. This KPI comprises Scope 1 (from running the assets within our operational control boundary) and Scope 2 (associated with importing electricity, heating and cooling that is bought in to run those operations) data covered by aim 1 (to be net zero across our operations by 2050 or sooner). It comprises 100% of Scope 1 and 2 emissions or activities within bp's operational control boundary.

2023 performance

Scope 1 (direct) emissions, covered by aim 1, were 31.1MtCO₂e – an overall increase from 30.4MtCO₂e in 2022. Of these Scope 1 emissions, 30.2MtCO₂e were CO₂ and 1.0MtCO₂e methane^e. Overall emissions increased due to temporary operational changes, project start-ups and growth, which was partially offset by delivery of SERs and divestments.

In 2023 our Scope 2 (indirect) emissions, covered by aim 1, decreased by 0.4MtCO₂e, to 1.0MtCO₂e, compared with 2022^d. Lower carbon power agreements, including those at our Cherry Point and Whiting refineries, contributed to this decrease.

Basis of calculation^f

bp's reported GHG emissions include methane (CH₄) and carbon dioxide (CO₂). Other GHGs are not included as they are not material to our operations. CH₄ emissions are converted to CO₂ equivalent using the 100-year global warming potential (GWP) recommended by the Fifth Assessment Report (AR5) of the Intergovernmental Panel on Climate Change (IPCC).

Data is required to be submitted into the bp group reporting tool, OneCSR, in accordance with bp's Operating Management System (OMS) requirements, broadly based on the GHG Protocol Corporate Standard and the Ipieca Petroleum Industry Guidelines for Reporting Greenhouse Gas Emissions 2nd Edition, May 2011. The responsibility for quantifying and submitting GHG emissions for reporting is assigned to individual bp facilities and business departments, which are termed reporting units (RUs).

Methane intensity^{bg} (%) **T**

2023	0.05
2022	0.05
2021	0.07
2020	0.12
2019	0.14

We define methane intensity[★] as the amount of methane emissions from our upstream oil and gas operations as a percentage of the gas that goes to market from those operations. This applies to methane emissions within our operational control boundary, where we have the highest degree of control. Methane emissions from non-producing activities, such as exploration drilling, are excluded. The 2023 methane intensity is calculated based on the currently used methodology and, while it reflects progress in reducing methane emissions, it will not directly correlate with progress towards delivering the 2025 target under aim 4.

2023 performance

We maintained our methane intensity at 0.05% in 2023^g. Methane emissions from upstream operations used to calculate our intensity, increased by around 10% from 28kt in 2022 to 31kt in 2023.




Basis of calculation^f

All operated upstream assets report methane (CH₄) emissions on a 100% basis, including emissions from operated upstream oil and gas terminals and LNG facilities. Marketed gas production: all upstream gas reaching a market from bp-operated, upstream assets, whether or not this is bp-owned product, and includes gas production from natural gas wells and associated gas from oil production wells. Throughput from bp-operated oil and gas terminals is excluded to avoid double counting despite their associated CH₄ emissions being included in the metric. CH₄ data is required to be submitted into the bp group reporting tool, OneCSR, in accordance with OMS requirements, broadly based on the GHG Protocol Corporate Standard and the Ipieca Petroleum Industry Guidelines for Reporting Greenhouse Gas Emissions 2nd Edition, May 2011. The responsibility for quantifying and submitting CH₄ emissions for reporting is assigned to individual bp facilities and business departments, which are termed RUs.

 Aim 4, page 49

 Aim 1, page 48

Key

-  Used for remuneration policy
-  Performance against strategy, **page 13**
-  TCFD Recommendations and Recommended Disclosures

Sustainable GHG emissions reductions^{★bh} (SERs) (MtCO₂e) **T**

2023	0.9
2022	1.5
2021	1.6
2020	1.0
2019	1.4

This measure includes actions taken by our businesses to improve energy efficiency and reduce methane emissions and flaring – all leading to ongoing, quantifiable GHG reductions. These refer to the GHG emissions on an operational control basis, which comprise 100% of emissions from activities that are operated by bp and would have occurred had we not made the change – they are absolute in nature. From 2019-23 progress against this target was used as a factor in determining bonuses for eligible employeesⁱ, including executives.

2023 performance

We delivered 0.9MtCO₂e of SERs from our businesses and activities including reducing Scope 2 emissions by 255ktCO₂e at our Cherry Point and Whiting refineries through lower carbon power agreements^d. We also reduced operational emissions by 149ktCO₂e at bpx energy through ongoing reductions linked to the expansion of bpx energy's network of centralization facilities.

Basis of calculation^f

See glossary on [page 373](#) for a description. SERs reported are from reductions that meet three criteria described in the reporting period. SERs reported include Scope 1 (direct) CO₂ emission reductions, direct CH₄ emission reductions and Scope 2 (indirect) GHG emissions reductions. The responsibility for calculating and submitting SERs lies with individual bp facilities and business departments, which are termed reporting units (RUs). RUs submit a quarterly breakdown of SERs directly into the bp group reporting tool, OneCSR. The RUs follow a formal GHG data submission sign-off process in OneCSR confirming SERs have been reported in accordance with OMS requirements.

Diversity and inclusion^j (%)

2023	34	33
2022	33	33
2021	32	31
2020	29	30
2019	25	25

■ Women in group leadership ■ People from beyond the UK and US in group leadership

Our people are crucial to delivering our purpose and strategy. We aim to recruit talented people from diverse backgrounds, invest in their development and promote an inclusive culture.

Each year we report the percentage of women and individuals from countries other than the UK and the US among bp's group leaders.

2023 performance

The percentage of women in group leadership increased in 2023, continuing an upward trend over the previous five years. The percentage of people from beyond the UK and US in group leadership remained at 33%.

 [Diversity, equity and inclusion, page 71](#)

Employee engagement (%)

2023	73
2022	70
2021	64
2020	64
2019	65

We conduct a 'Pulse annual' employee survey to understand and monitor levels of employee engagement and identify areas for improvement.

2023 performance

Our 2023 survey took place in August. Employee engagement increased to 73% (2022 70%). Pride in working for bp also increased from 78%, reported in 2022, to a record 80%. Both numbers are notable given that participation was the highest since the survey began, with an 85% response rate. We continue to build engagement plans based on survey feedback and on real-time updates from our monthly snapshot, 'Pulse live'.

 [Employee engagement, page 71](#)

a Total (100%) Scope 1 (direct) GHG emissions from source activities operated by bp or otherwise within bp's operational control boundary. bp's reported GHG emissions include CH₄ and CO₂. Other GHGs are not included as they are not material to our operations.

b These are our KPIs for the purposes of our disclosures pursuant to the UK CFD Regulations and Section 414CB (2A) (h) of the Companies Act 2006.

c Due to rounding some totals may not equal the sum of their component parts. This does not affect the underlying values.

d Scope 2 emissions on a market basis.

e Scope 2 GHG emissions figure for 2022 updated to reflect use of renewable energy in UK and offshore in 2022.

f Included as part of reporting under the Companies (Strategic Report) Climate-related Financial Disclosure Regulations 2022 (The UK CFD Regulations).

g Methane intensity is currently calculated using our existing methodology and, while it reflects progress in reducing methane emissions, will not directly correlate with progress towards delivering the 2025 target under aim 4.

h For 2024 our sustainability measure is now linked to our operated carbon emissions, which will cover all increases and decreases in those emissions over the year.

i 36,400 employees were eligible for a cash bonus in 2023 (2022 32,000).

j Relates to bp employees.

Our financial frame

Operating within a resilient and disciplined financial frame

Our financial frame comprises five clear priorities governing how we intend to allocate cash flow that we generate to grow distributions to shareholders, strengthen our balance sheet, and invest with discipline to grow the value of bp.

Our disciplined financial frame to 2025

Resilient dividend	Strong investment grade credit rating	Disciplined investment allocation	Share buybacks
7.270¢ per ordinary share for 4Q23 Resilient \$40/bbl cash balance point^a★ #1 Capacity for annual increase of the dividend per ordinary share of ~4% at ~\$60/bbl	'A' range credit metrics through cycle #2 Target further progress on credit metrics within the 'A' range through cycle	~\$16bn 2024-25 p.a. capital expenditure★ #3 Transition growth★ engines #4 Oil, gas, refining and other businesses	\$3.5bn 1H24 ^b At least \$14bn through 2025 ^c #5 Committed to returning at least 80% surplus cash flow★ on a point forward basis

a Cash balance point \$40/bbl Brent, \$11/bbl RMM, \$3/mmBtu Henry Hub, all 2021 real.

b First half 2024 buybacks will be announced at the first and second quarter results, subject to board approval.

c At current market conditions and subject to maintaining a strong investment grade credit rating.

Our five priorities remain unchanged

#1 Resilient dividend

A resilient dividend remains our first priority within our disciplined financial frame. It is underpinned by a cash balance point of around \$40 per barrel Brent, \$11 per barrel RMM and \$3 per mmBtu Henry Hub (all 2021 \$ real).

Since the fourth quarter of 2022 our dividend per ordinary share has grown by 10% to 7.270 cents.

Based on our current forecasts, at around \$60 per barrel Brent and subject to the board's discretion each quarter, we expect to have capacity for an annual increase in the dividend per ordinary share of around 4% per annum.

#2 Strong investment grade credit rating

Our second priority is a strong investment grade credit rating. Through the cycle, we are targeting to further improve our credit metrics within an 'A' grade credit range.

For the full year 2023, finance debt increased from \$46.9 billion at the end of 2022 to \$52.0 billion, primarily reflecting net long-term debt issuances. But we reduced net debt★ from \$21.4 billion to \$20.9 billion, the lowest in a decade.

#3 & #4 Disciplined investment allocation

We plan to invest with discipline, driven by value, and focused on delivering returns consistent with our hurdle rates across both our transition growth engines (#3) and our oil, gas and refining businesses (#4). Investment is allocated across our businesses based on a set of criteria that balances strategic alignment, hurdle rates, volatility, integration value, sustainability and risk (see [page 30](#) for more information).

In 2023 capital expenditure was \$16.3 billion. We expect capital expenditure to remain around \$16 billion per annum between 2024-25. Our capex frame between 2026 and 2030 remains £14-18 billion per annum. This includes expenditure on inorganic opportunities.

#5 Share buybacks

We have simplified and enhanced our share buyback guidance. We are committed to announcing \$3.5 billion of share buybacks for the first half of 2024. We plan share buybacks of at least \$14 billion through 2025, at current market conditions and subject to maintaining a strong investment grade credit rating. This is part of our commitment, on a point forward basis, to returning at least 80% of surplus cash flow to shareholders.

We announced share buybacks of \$6.5 billion from 2023 surplus cash flow. Between the end of the first quarter 2021 and 31 December 2023, we have reduced our issued share capital by 17%.

In setting the dividend per ordinary share and buyback each quarter, the board will continue to take into account factors including the cumulative level of and outlook for surplus cash flow, the cash balance point and maintaining a strong investment grade credit rating.

Six near-term priorities

We are focused on growing the value of bp, underpinned by six near-term priorities.

①

Improve safety and reduce emissions

Safety is our number one priority. And we are working towards our aim for net zero operations

②

Drive focus into the business

Actively manage our portfolio, continued high-grading

③

Deliver next wave of efficiency

Using technology and global capability hubs to increase margin while decreasing spend

④

Deliver growth projects

Progressing next set of projects to provide growth through to the end of this decade and into the next

⑤

Optimize returns

Targeting >18% return on average capital employed★ in 2025^a

⑥

Grow shareholder returns

Committed to returning at least 80% of surplus cash flow^b through share buybacks

Measured by



20%

96%

~96%

~\$16bn

continued improvement in safety metrics

reduction in operating emissions^c, 0.20% methane intensity★ target based on measurement approach^c

upstream★ plant reliability★^d

refining availability★^d

capital expenditure★ for 2024-25 p.a.

2024 guidance

	2023 actual	2024 guidance
Upstream reported production (guidance is both reported and underlying production★)	2.3mmboe/d	Slightly higher than 2023
Total capital expenditure★	\$16.3bn	Around \$16bn, weighted to the first half
Depreciation, depletion and amortization	\$15.9bn	Slightly higher than 2023
Divestments and other proceeds ^e	\$1.8bn	\$2-3bn, weighted towards the second half
Gulf of Mexico oil spill payments ^f (pre-tax)	\$1.3bn	~\$1.2bn including \$1.1bn pre-tax to be paid during the second quarter
Other businesses & corporate underlying annual charge	\$0.9bn	Around \$1.0bn
Underlying effective tax rate★	39% ^g	Around 40% ^h

a By 2025. \$70/bbl (2021 real), at bp planning assumptions.

b At current market conditions and subject to maintaining a strong investment grade credit rating.

c By 2025 and versus 2019.

d By 2025.

e Divestment proceeds★ are disposal proceeds as per the group cash flow statement. See page 37 for more information on divestment and other proceeds.

f See Financial statements – Note 22 for more information on payables related to the Gulf of Mexico oil spill.

g Nearest equivalent GAAP IFRS measure: effective tax rate 33%.

h Underlying effective tax rate★ is sensitive to the impact that volatility in the current price environment may have on the geographical mix of the group's profits and losses.

Our investment process

How we use price assumptions

Our price assumptions are used for our investment appraisal processes. They are also used to inform decisions about internal planning and the value-in-use impairment testing of assets for financial reporting.

The role of price assumptions

As part of our regular strategy review, we consider our portfolio and capital requirements to deliver the strategy. This work (and, where applicable, our decisions on individual investments) is informed by our view of the price environment and considers the balanced investment criteria discussed below.

Our price assumptions continue to reflect a range of possibilities, including that the transition to a lower carbon economy and energy system could accelerate. Our investment appraisal assumptions, which take a long-term perspective, focus on the fundamental trends affecting the energy sector and our businesses.

Throughout 2023 we held our key investment appraisal price assumptions constant at the levels set out in the *bp Annual Report and Form 20-F 2022*. For relevant investment cases assessed in 2024, we have applied and plan to apply the prices shown in the key investment appraisal assumptions table (right) for our central price case. Brent oil and Henry Hub gas assumptions average around \$64/bbl and \$4.0/mmBtu respectively (2022 \$ real) from 2024 to 2050. We consider these prices to be broadly consistent with a range of transition paths compatible with meeting the Paris goals, but they do not correspond to any specific Paris-consistent scenario. We also consider a range of other price assumptions for our investment appraisal, including product- and market-specific prices relevant to individual investment cases.

We continue to apply carbon prices rising to \$100/tCO₂e in 2030 and \$250/tCO₂e by 2050 (2021 \$ real) in certain cases (see box on the right). In 2022 \$ real terms, this corresponds to \$108/tCO₂e by 2030 and \$270/tCO₂e by 2050.

Key

Information that supports TCFD Recommendations and Recommended Disclosures in relation to Metrics and Targets

Impairment testing

Our best estimate of future prices for use in value-in-use impairment testing continues to be based on our investment appraisal price assumptions, with quarterly review of near-term prices to confirm that the assumptions appropriately reflect any changes to expectations due to short-term market trends.

Impairment price assumptions were held constant in 2023 at the levels disclosed in the *bp Annual Report and Form 20-F 2022* until the fourth quarter, when the updated investment appraisal price assumptions shown below were used for value-in-use impairment testing.

Key investment appraisal assumptions^a

2022 \$ real

	2025	2030	2040	2050
Brent oil (\$/bbl)	70	70	63	50
Henry Hub gas (\$/mmBtu)	4.0	4.0	4.0	4.0
Refining marker margin ^b ★ (\$/bbl)	14	14	11	8.5

In addition to the prices shown we also test whether investments meet our return expectations (see [page 32](#)) using a \$60/bbl Brent oil price series.

Carbon price (US\$/tCO₂e)

2022 \$ real

	2025	2030	2040	2050
Carbon	54	108	216	270

a The values in the table represent the central case.

b The disclosed RMM assumption in the table excludes carbon pricing impacts and assumes a normalized cost of renewable identification numbers (RINs).

Investment process price assumptions

All investments are evaluated against relevant price assumptions for oil, natural gas, refining margins or other commodities across a range of alternative price or margin series (typically a central, upper and lower series). In addition, all investment cases with anticipated annual operational GHG emissions (Scope 1 and 2) above 20,000 tonnes of CO₂ equivalent (bp net basis) must estimate those anticipated GHG emissions and include an associated carbon cost in the investment economics, using the carbon prices above.

Our investment price assumptions place some weight on scenarios in which the transition to a low carbon energy system is sufficiently rapid to meet the goals of the Paris Agreement, as well as scenarios in which the transition may not be sufficiently rapid. They also place some weight on a range of other factors that can drive prices, and which are not directly related to the Paris goals.

For investment appraisal, potential future operational emissions costs that may be borne by bp as a result of an investment are included as bp costs, as described in the box below (generally without assuming incremental revenue associated with those emissions), in order to incentivize engineering solutions that reduce operational carbon emissions on projects. For the treatment of emission cost assumptions in value-in-use impairment testing, see Financial statements – Note 1.

These price assumptions do not link to specific scenarios or outcomes, but instead try to capture the range of different possibilities surrounding the future path of the global energy system. The nature of the uncertainty means that the price ranges inevitably reflect considerable judgement. The ranges are reviewed and updated as necessary, as our understanding of and judgements about the energy transition evolve.

In addition to consideration of a range of price assumptions, investment cases also assess the impact of alternative assumptions covering other selected variables relevant to the economics of the investment. These variables may include cost, resource, policy changes and schedule, or other areas of uncertainty, to assess the robustness of investment cases to a range of other factors.

Investment governance and evaluating consistency with the Paris goals

Governance framework

bp's framework for investment governance seeks to ensure that investments align with our strategy, can be accommodated within our prevailing financial frame, and add shareholder value. It enables investments to be assessed in a consistent way against a range of criteria relevant to our strategy, including environmental and other sustainability criteria.

Investments follow an integrated stage-gate process designed to enable our businesses to choose and develop the most attractive investment cases. A balanced set of investment criteria is used (see [page 32](#)). This allows for the comparison and prioritization of investments across an increasingly diverse range of business models.

The governance framework specifies that proposed investments are evaluated using relevant assumptions, including carbon prices for projected operational emissions where applicable. It also sets out requirements for assurance by functions independent of the business before a final investment decision (FID) is taken.

The role of the board

The board assesses capital allocation across the bp portfolio, including the level and mix of capital expenditures and divestments, strategic acquisitions, distribution choices and deleveraging, as well as reviewing certain investment cases for approval.

Resource commitment meeting

For acquisitions and organic capital investments above defined financial thresholds, investment approval is conducted through the executive-level resource commitment meeting (RCM), which is chaired by the chief executive officer. The RCM reviews the merits of each investment case against a balanced set of criteria (see [page 32](#)) and considers any key issues raised in the assurance process.

The CA100+ resolution★ requires bp to disclose how we evaluate the consistency of new material capex investments★ with (i) the Paris goals and (ii) a range of other outcomes relevant to bp's strategy.

bp's evaluation of the consistency of such investments with the Paris goals was undertaken by the RCM for new material capex investments sanctioned in 2023 (see [page 34](#)).

bp's evaluation of an investment's consistency with 'a range of other relevant outcomes' is achieved by considering its merits against bp's balanced investment criteria, described on [page 32](#).

bp board

Reviews and approves investment cases of more than \$3 billion for resilient hydrocarbons, more than \$1 billion for all transition or low carbon investments★ and any significant inorganic acquisition that is exceptional or unique in nature.

Resource commitment meeting

Forum for executive management's approval of investments related to existing and new lines of business above \$250 million or \$25 million for acquisitions, or which exceed the relevant EVP's financial authority, and any project considered strategically important such as a new market entry.

Investment allocation committees

EVP-level forums to review investment cases within a business group as per individual EVP financial authority (up to \$250 million, or typically \$25 million for acquisitions).

Business group investment governance meetings

SVP-level forums which review investment cases within a business group, enabler or integrator up to the individual SVP's financial authority.

Cross-group meetings

Forums that facilitate discussions across businesses and functions, to support project development, sensitivity analysis, integration opportunities and risk assessment ahead of investment committee meetings.

Investment in non-oil and gas

Our aim 5 is to increase the proportion of investment we make into our non-oil and gas businesses. Aim 5 aligns with our transition growth investment★. In 2023 transition growth investment was \$3.8 billion, compared to \$4.9 billion in 2022. The change from 2022 reflects lower inorganic investment in our transition growth engines, outweighing an increase in organic investment into them over the year (see [page 49](#)).

Bioenergy: Following our 2022 acquisition of Archaea Energy, and continued growth through 2023, Archaea started up its modular design renewable natural gas (RNG) plant in Medora, Indiana in October 2023 (see [page 18](#)).

EVs: Together with our strategic convenience site networks, our investment in EV charging is helping us to offer low carbon solutions to customers. In 2023 we continued to rapidly

build scale in our EV charging network in key markets including China, the UK, Germany and the US (see [page 21](#)). We also announced a new global mobility agreement with Uber, which will see us work together to help accelerate Uber's commitment to becoming a zero-tailpipe emission mobility platform in the UK, US, Canada and Europe by 2030 and globally by 2040.

Convenience: In 2023 we had 2,850 strategic convenience★ sites, and aim to have around 3,000 by 2025. In May 2023 we acquired TravelCenters of America, a leading travel centre operator in the US, with a network of around 290 sites strategically located on major highways across the country (see [page 20](#)).

Hydrogen: We aim to build a leading global position in hydrogen – initially by supplying our own refineries and then scaling up to meet growing customer demand. In parallel, as markets evolve, we aim to develop global export hubs for hydrogen and its derivatives. In 2023 we announced a \$12.5 million investment in the hydrogen electrolyzer innovator, Advanced Ionics. This investment is expected to help drive Advanced Ionics' growth and facilitate the initial deployment of its Symbion™ water vapour electrolyzer technology for heavy industry. The company's water vapour electrolyzer helps reduce the cost and electricity requirements of green hydrogen★ production. In the Valencia region of Spain, we launched plans for a green hydrogen cluster called HyVal, at our Castellón refinery (see [page 23](#)).

Renewables & power: In 2023 we were awarded the rights to develop two offshore wind projects in the German tender round. The two North Sea sites have a total potential generating capacity of 4GW (see [page 23](#)). We also announced our joint venture★ with Deep Wind Offshore to develop opportunities in South Korea, acquiring a 55% stake in the company's early-stage offshore wind portfolio. This includes four projects with a combined potential generating capacity of up to 6GW. In Texas, US, we started construction work on the 187MW Peacock Solar project (see [page 22](#)). And in November 2023 we agreed to acquire the remaining 50.03% interest in Lightsources bp, which we did not already own (see [page 23](#)).

Low carbon activity investment

In 2023 low carbon activity investment★, a subset of our total aim 5 transition growth investment, accounted for 67% of our total aim 5 investment (80% in 2022). It decreased from more than \$4 billion in 2022 to more than \$2.5 billion in 2023, reflecting the impact of large low carbon acquisitions in 2022. Most of this investment was in biogas, offshore wind, EV charging and hydrogen. Our current business plans see low carbon activity★ comprising more than 80% of our aim 5 spend by 2030.

Our investment process continued

Balanced investment criteria

All investment cases must set out their investment merits and are considered against a set of six balanced investment criteria – although investment decisions may also take other factors into account as appropriate. This standardized approach is intended to create a level playing field for decision making and allows portfolio-wide comparisons of investment cases. The decision to endorse an investment based on the information provided represents our evaluation that it is consistent with what the 2019 CA100+ resolution★ refers to as ‘a range of other outcomes relevant to bp’s strategy’.

The **six** balanced investment criteria are:

Strategic alignment: For all investment cases, we consider whether the investment supports delivery of our strategy, including our net zero aims. We also assess if the investment case involves distinctive capability that bp has, or intends to develop, and whether it adds to an existing ‘scale’ business within the portfolio or could help us create one.

Safety and risks: For all investment cases, we provide an assessment of the key risks to the investment that have a significantly higher probability than usual or have a significantly greater impact (relative to the size of the project) were they to occur. Safety risk management at bp is underpinned by our Operating Management System (OMS)★ that is designed to help us sustainably deliver safe, reliable and compliant bp operations.

Sustainability: For all investment cases, we consider how any proposed business opportunity is connected to the energy transition, societal needs and the environment. This approach is underpinned by our purpose and sustainability frame. All RCM cases must consider significant impacts of an investment on key sustainability aims, informed by our sustainability assessment template for investment cases (for our use of carbon prices, see box on [page 30](#)).

Investment economics: For all investment cases, we consider investment economics against a range of relevant measures. Depending on the nature of the investment case, these may include return expectations (internal rate of return or IRR), net present value, discounted payback, and profitability index, reflecting assumptions about relevant commodity prices, margins and carbon prices (see [page 30](#)). The forward economics of an investment case are considered against the differentiated IRRs, applicable to that case at the time of the investment decision, depending on the business. We also refer to these expectations as hurdle rates, although as noted, each case is assessed according to its combined merit against our full set of balanced criteria.

1. For our resilient hydrocarbons portfolio, we seek a payback of less than 10 years for upstream oil and refining and 15 years for upstream gas; together with an IRR of 15-20%.
2. For bioenergy, we seek an IRR in excess of 15%.
3. For our convenience and EV charging businesses, we seek portfolio-level returns in excess of 15%.
4. For our hydrogen investments, we expect double-digit (unlevered) IRR.
5. For renewables investments, we seek an unlevered IRR of 6-8%.

For each investment, the relevant return expectations above are assessed using our central price assumptions. For additional capital discipline for investments in oil and gas production, we also compare the central price hurdle above (15-20%) to a case in which the Brent oil price starts at \$60/bbl and later declines to the level of our key appraisal assumptions by 2050 (see [page 30](#)). In addition, for investments in our oil and gas and refined products businesses, as well as any other investments that do not fall within one of the specific businesses set out above, we also compare the IRR in our lower-price case to a cost of capital hurdle rate.

Volatility and rateability: Our investment economics metrics also consider the degree of uncertainty of the cash flows when considering investment cases. For example, some cases have more certainty of future costs and revenue projections. Variation in net present values for the key variables in an investment case are quantified by sensitivity analysis to give a range of potential outcomes against our key investment hurdles.

Optionality and integration: Our assessment considers the degree of optionality offered by a project – the ability to adapt our business to changing circumstances. This could be an option to sell a product with a floor price, or the right to purchase additional equity in a joint venture at specific terms. Other types of options include the right to develop (or not develop) extensions to existing projects, or to change the course of a project’s development depending on market circumstances. We likewise seek out integration along value chains across multiple products, services, geographies and customers. For example, our gas production can supply liquefaction plants whose LNG is monetized by our trading business. Likewise, future carbon sequestration projects may allow us to add value to our gas production by converting it to low carbon power.

Paris consistency evaluation process

Our new material capex investments★ are intended to support the delivery of bp's strategy.

For evaluations conducted in 2023, investments in scope for evaluation were defined as:

- **New:** investment in a new project or extension of an existing project/asset or share of an entity that is new to bp or a substantial increase in bp's share.
- **Material:** more than \$250 million capex investment.

We evaluated new material capex investment using our central price assumptions (see [page 30](#)), and, where applicable, using our lower-price case. Where relevant the evaluation also incorporated our carbon price assumptions, applied to the anticipated operational GHG emissions associated with the investment, through to 2050.

Quantitative evaluations

For our investment economics and sustainability investment criteria we considered quantitative guide levels, as set out below, to inform the evaluation of each investment's consistency with the goals of the Paris Agreement. As was the case last year, we have again lowered our operational carbon intensity guide levels in line with our decreasing portfolio average. As our approach matures with experience, we may continue to adjust or supplement our methodology. There may be instances when new material capex investments are evaluated as consistent with the Paris goals despite either the economic or sustainability guide levels not being met. The RCM may also take account, in its Paris consistency evaluation, of the six balanced investment criteria (above) using qualitative assessments.

Investment economics: We calculated economic indicators using our central price, and where applicable, our lower price cases, and applying our carbon price assumptions to relevant operational GHG emissions. (For our key central case oil and natural gas price assumptions, see [page 30](#), where we also set out our view on their consistency with achieving the Paris goals). We then compare the economic indicators to the relevant economic guide level (see below), based on the corresponding hurdles presented ([page 32](#)). We typically target a threshold of >1.0x the relevant IRR guide level, and <1.0x any relevant payback guide level.

Sustainability: Where appropriate, we compared the expected operational carbon intensity★ of the investment relative to that of the portfolio average shown in the *bp Sustainability Report 2022* for the segment or the related business activity (upstream and refining). We normally target a ratio of less than 100%, meaning that the investment is expected to reduce the average operational carbon intensity of the relevant portfolio. The potential impact of new material capex investments on bp's net zero aims is a further consideration.

Evaluation outcome

In 2023 there were nine new material capex investments approved. All were evaluated as being consistent with the Paris goals.

Evaluation of investment performance against quantitative guide levels^a

All nine investments met the relevant IRR guide level as shown in the chart.

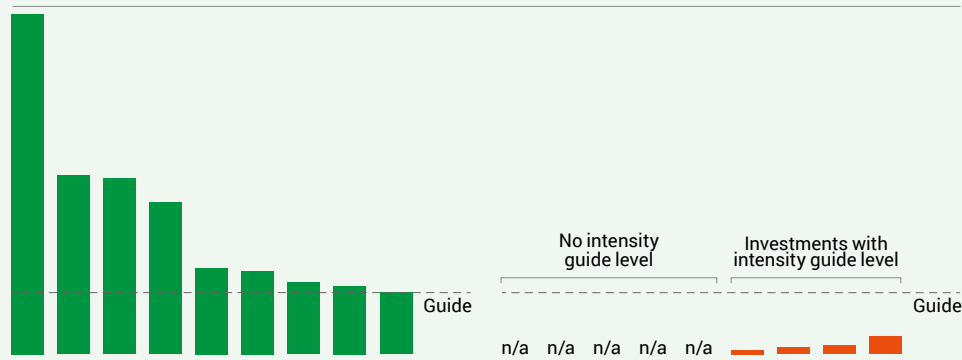
The four upstream hydrocarbon projects had emissions intensities below the relevant upstream intensity guide level. Five of the investments did not have an applicable carbon intensity guide for the relevant business. These investments are shown as 'n/a' in the operational carbon intensity chart.

Investment economics

Against central price economics

Sustainability^b

Against operational carbon intensity



a The 2023 investments have been compared to relevant guides (as applicable to the evaluation of each investment) and are presented here in order of the ratio to the relevant central-price case IRR guide level, and separately in order of the ratio to the relevant emissions intensity guide level. As a result, the evaluations against the economic and sustainability benchmarks do not necessarily follow the same order.

b For five of the investments, we do not have an applicable carbon intensity guide level for the relevant business.

Our investment process continued

Decisions taken in 2023

In 2023 there were nine new material capex investment decisions evaluated for Paris consistency:

Argos Gulf of Mexico

The Argos Southwest Extension project aims to deliver production from a new drill centre in the Mad Dog field, tied back to existing equipment with subsea infrastructure. Argos is our most digitally advanced platform operating in the Gulf of Mexico, and is key to our strategy of building capacity to produce around 400,000boe/d. We expect volumes to average around 350,000boe/d through the second half of the decade.

Oman Block 61

The investment involves the development and construction of a wellsite for a large number of wells and flowlines in Oman. The programme supports delivery of supply commitments and enables optimal depletion of the reservoir.

Murlach Redevelopment

Murlach is a two-well subsea tieback to existing infrastructure in the North Sea. The use of existing infrastructure is expected to help keep down development costs and operational carbon intensity, which is expected to be significantly below bp's average for its upstream operations.

Raven Infills

The Raven Infills Project is a two-well subsea tieback to existing Raven infrastructure in Egypt. The project's expected operational carbon intensity is significantly below bp's average for upstream operations.

TravelCenters of America

bp completed its purchase of TravelCenters of America, one of the biggest networks of highway travel centres in the US, adding a network of around 290 sites, strategically located on major highways across the US. The deal is expected to almost double^a our global convenience gross margin[★] and, over time, brings potential growth opportunities in four of our five transition growth engines.

bp pulse On-The-Go US

bp continued to advance its growth strategy in EV charging, approving a programme of investment of \$500 million in EV charging infrastructure in the US, including an agreement with Tesla for the future purchase of \$100 million of ultra-fast[★] chargers in the US. The investment will facilitate the expansion of the *bp pulse* public network across the US, while also enabling support for EV fleet customers by deploying chargers at their private depots.

Lightsource bp acquisition

Subject to regulatory approval, bp agreed to acquire the remaining 50.03% interest in Lightsource bp, one of the world's leading developers and operators of utility-scale solar and battery storage assets. Lightsource bp operates with a capital-light, 'develop, engineer, construct and farm down' business model, which is designed to create value by selling interests in developed assets to strategic partners. The acquisition is expected to help meet growing demand for low carbon power from our transition growth[★] engines.

Offshore German wind auction

bp was awarded the rights to develop two offshore wind projects in the North Sea in Germany, marking our entry into offshore wind in continental Europe. We expect renewable power from these projects to support our green hydrogen and biofuels production[★], electric mobility growth and refinery decarbonization, as well as wider industry decarbonization in Germany.

Power and gas supply acquisition

bp has agreed to acquire GETEC ENERGIE GmbH, a leading independent supplier of energy to commercial and industrial (C&I) customers, with operations in Germany, the Netherlands, Austria, Belgium, and Poland. On completion the acquisition will significantly expand our European power and gas C&I supply presence.

^a On an annualized basis when compared with 2022.

Group performance

A year of delivery



// bp delivered strong underlying financial performance in 2023 – we raised the dividend per ordinary share by 10% to 7.270 cents for the second quarter of 2023 and bought back \$7.9 billion of shares. We remain focused on strengthening the balance sheet. As we look forward, we are staying disciplined, tightening our capital expenditure frame and simplifying and enhancing our share buyback guidance through 2025. //

Kate Thomson
Chief financial officer

\$15.2bn

profit attributable to bp shareholders
(2022 loss \$(2.5)bn)

\$13.8bn

underlying replacement cost (RC) profit★
(2022 profit \$27.7bn)

\$32.0bn

operating cash flow★
(2022 \$40.9bn)

Financial and operating performance

\$ million except per share amounts

	2023	2022	2021
Sales and other operating revenues	210,130	241,392	157,739
Profit before interest and tax	27,348	18,039	18,082
Finance costs and net finance income/expense relating to pensions and other post-retirement benefits	(3,599)	(2,634)	(2,855)
Taxation	(7,869)	(16,762)	(6,740)
Profit (loss) for the year	15,880	(1,357)	8,487
Non-controlling interest	(641)	(1,130)	(922)
Profit (loss) for the year attributable to bp shareholders	15,239	(2,487)	7,565
Inventory holding (gains) losses★, before tax	1,236	(1,351)	(3,655)
Taxation charge (credit) on inventory holding gains and losses	(292)	332	829
Replacement cost (RC) profit (loss)★	16,183	(3,506)	4,739
Net (favourable) adverse impact of adjusting items★ ^a , before tax	(1,143)	29,781	8,697
Total taxation charge (credit) on adjusting items	(1,204)	1,378	(621)
Underlying RC profit	13,836	27,653	12,815
Adjusted EBIDA★	34,345	45,695	30,783
Adjusted EBITDA★	43,710	60,747	37,315
Dividend paid per ordinary share (cents)	27.760	22.932	21.420
Dividend paid per ordinary share (pence)	22.328	18.624	15.538
Profit (loss) per ordinary share (cents)	87.78	(13.10)	37.57
Profit (loss) per ADS (dollars)	5.27	(0.79)	2.25
Underlying RC profit per ordinary share★ (cents)	79.69	145.63	63.65
Underlying RC profit per ADS★ (dollars)	4.78	8.74	3.82
Adjusting items^a	361	3,866	1,851
Gains on sale of businesses and fixed assets	(5,838)	(5,920)	1,123
Net impairment and losses on sale of businesses and fixed assets	(647)	325	(1,536)
Environmental and other provisions	37	34	(249)
Restructuring, integration and rationalization costs	9,403	(3,501)	(8,075)
Fair value accounting effects (FVAEs) ^b	—	(24,033)	(291)
Rosneft	(57)	(84)	(70)
Gulf of Mexico oil spill	(1,711)	(43)	(668)
Other	1,548	(29,356)	(7,915)
Total before interest and taxation	(405)	(425)	(782)
Finance costs	1,143	(29,781)	(8,697)
Adjusting items total taxation	1,204	(1,378)	621
	2,347	(31,159)	(8,076)

^a See [page 337](#) for more information.

^b See [page 338](#) for information on the cumulative impact of FVAEs.

Group performance continued

At 31 December 2023 the group's reportable segments are gas & low carbon energy, oil production & operations and customers & products. Each is managed separately, with decisions taken for the segment as a whole, and represent a single operating segment that does not result from aggregating two or more segments. See Financial statements – Note 5 Segmental analysis.

Results

The profit for the year ended 31 December 2023 attributable to bp shareholders was \$15.2 billion, compared with a loss of \$2.5 billion in 2022. Adjusting for inventory holding losses, RC profit was \$16.2 billion, compared with a loss of \$3.5 billion in 2022.

After adjusting RC profit for a net impact of items, which bp has classified as adjusting (adjusting items) of \$2.3 billion (on a post-tax basis), underlying RC profit for the year ended 31 December 2023 was \$13.8 billion. The result reflected lower realizations, the impact of portfolio changes, the impact of lower refining margins and a lower oil trading performance.

For 2022, after adjusting RC profit for a net adverse impact of adjusting items of \$31.2 billion (on a post-tax basis), underlying RC profit was \$27.7 billion. The result reflected higher gas and liquids realizations and higher refining margins, partially offset by higher tax and the absence of bp's share of earnings from Rosneft.

For a discussion of bp's financial and operating performance for the years ending 31 December 2021 and 31 December 2022, see bp's *Annual Report and Form 20-F 2022*, pages 32-44.

Adjusting items

In 2023 the net favourable pre-tax impact of items, which bp has classified as adjusting (adjusting items) was \$1.1 billion including:

- Favourable fair value accounting effects (FVAEs) relative to management's measure of performance of \$9.4 billion primarily due to a decline in the forward price of LNG during 2023. Under IFRS, reported earnings include the mark-to-market value of the hedges used to risk-manage LNG contracts, but not of the LNG contracts themselves. The underlying result includes the mark-to-market value of the hedges but also recognizes changes in value of the LNG contracts being risk managed. The impacts of FVAEs relative to management's internal measure of performance are provided on [page 338](#).

- Net impairment charges of \$5.7 billion largely as a result of changes in the group's price and discount rate assumptions, activity phasing and economic forecasts (in particular related to the Gelsenkirchen refinery).
- In addition, \$1.3 billion net impairment charges were reported through equity-accounted earnings (reported within the 'other' category), of which \$1.1 billion relates to our US offshore wind projects.

In 2022 the net adverse pre-tax impact of adjusting items was \$29.8 billion including:

- A pre-tax charge of \$24.0 billion relating to bp's decision to exit its 19.75% shareholding in Rosneft.
- Adverse FVAEs relative to management's measure of performance of \$3.5 billion primarily arising from an increase in forward gas prices during the year and the changes in the fair value of derivatives entered into by the group to manage currency exposure and interest rate risks relating to hybrid bonds. Under IFRS, reported earnings include the mark-to-market value of the hedges used to risk-manage LNG contracts, but not of the LNG contracts themselves. The underlying result includes the mark-to-market value of the hedges but also recognizes changes in value of the LNG contracts being risk managed. The impacts of FVAEs relative to management's internal measure of performance are provided on [page 338](#).
- Net impairment charges of \$4.8 billion principally as a result of expected portfolio changes in our oil production & operations segment, the annual review of price assumptions used for investment appraisal and value-in-use impairment testing and the annual review of discount rates used for impairment tests; partially offset by
- A non-taxable gain of \$1.9 billion arising from the contribution of bp's Angolan business to Azule Energy.

See Financial statements – Note 4 for more information on impairments, and [pages 337 and 338](#) for more information on adjusting items and FVAEs.

Taxation

The charge for corporate income taxes was \$7,869 million in 2023 compared with \$16,762 million in 2022. The decrease mainly reflects lower taxable profits. The effective tax rate (ETR) on the profit before taxation for the year in 2023 was 33%, compared with 109% in 2022.

The ETR on the profit before taxation for the year in 2023 was impacted by fair value accounting effect gains and other adjusting items. The ETR on the profit before taxation for the year in 2022 was impacted by the pre-tax charges relating to bp's decision to exit its shareholding in Rosneft, and the UK Energy Profits Levy. Excluding inventory holding impacts and adjusting items, the underlying ETR★ in 2023 was 39% compared with 34% in 2022. The underlying ETR in 2023 is higher due to changes in the geographical mix of profits and the increased impact of the UK Energy Profits Levy. The underlying ETR for 2024 is expected to be around 40% but is sensitive to the impact that volatility in the current price environment may have on the geographical mix of the group's profits and losses. Underlying ETR is a non-IFRS measure. A reconciliation to IFRS information is provided on [page 382](#).

Outlook for 2024

2024 guidance

- bp expects both reported and underlying upstream production★ to be slightly higher compared with 2023. Within this, bp expects underlying production from oil production & operations to be higher and production from gas & low carbon energy to be lower.
- In its customers business, bp expects continued growth from convenience, including a full-year contribution from TravelCenters of America, a stronger contribution from *Castrol* underpinned by volume growth in focus markets, and continued margin growth from *bp pulse* driven by higher energy sold. In addition, bp expects fuel margins to remain sensitive to the cost of supply.
- In products, bp expects a lower level of industry refining margins, with realized margins impacted by narrower North American heavy crude oil differentials. bp expects refinery turnaround activity to have a similar impact on both throughput and financial performance compared to 2023, with phasing of activity in 2024 heavily weighted towards the second half.
- bp expects the other businesses & corporate underlying annual charge to be around \$1.0 billion for 2024. The charge may vary from quarter to quarter.

Cash flow and debt information

	\$ million		
	2023	2022	2021
Cash flow			
Operating cash flow★	32,039	40,932	23,612
Net cash used in investing activities	(14,872)	(13,713)	(5,694)
Net cash provided by (used in) financing activities	(13,359)	(28,021)	(18,079)
Cash and cash equivalents at end of year	33,030	29,195	30,681
Capital expenditure★^a	(16,253)	(16,330)	(12,848)
Divestment and other proceeds^b	1,843	3,123	7,632
Debt			
Finance debt	51,954	46,944	61,176
Net debt★	20,912	21,422	30,613
Net debt including leases★	31,902	29,990	39,411
Finance debt ratio★ (%)	37.8%	36.1%	40.3%
Gearing★ (%)	19.7%	20.5%	25.3%
Gearing including leases★ (%)	27.2%	26.5%	30.4%

a An analysis of capital expenditure by segment and region is provided on [page 336](#).

b Divestment proceeds are disposal proceeds as per the group cash flow statement. See below for more information on divestment and other proceeds.

Operating cash flow

Operating cash flow for the year ended 31 December 2023 was \$32.0 billion, \$8.9 billion lower than 2022. Compared with 2022, operating cash flows in 2023 primarily reflected lower realizations, refining margins and oil trading performance and the impact of portfolio changes.

Movements in working capital★ adversely impacted cash flow in the year by \$3.3 billion, including an adverse impact from the Gulf of Mexico oil spill of \$1.2 billion. Other working capital effects were principally a decrease in other current liabilities, partly offset by decreases in inventory and other current assets. bp actively manages its working capital balances to optimize and reduce volatility in cash flow.

Operating cash flow for the year ended 31 December 2022 was \$40.9 billion, \$17.3 billion higher than 2021. Compared with 2021, operating cash flows in 2022 reflected higher profits from operations partly offset by working capital movements and higher tax payments.

Movements in working capital adversely impacted cash flow in 2022 by \$6.3 billion, including an adverse impact from the Gulf of Mexico oil spill of \$1.3 billion. Other working capital effects were principally an increase in other current assets and inventory offset by an increase in other current liabilities.

Net cash used in investing activities

Net cash used in investing activities for the year ended 31 December 2023 increased by \$1.2 billion compared with 2022.

The increase mainly reflected an increase in expenditure on fixed assets and lower divestment proceeds, partly offset by a decrease in acquisitions, as the prior year included \$3.0 billion for the acquisition of Archaea Energy.

Total capital expenditure for 2023 was \$16.3 billion (2022 \$16.3 billion), of which organic capital expenditure★ was \$15.0 billion (2022 \$12.5 billion). Inorganic capital expenditure includes \$1.1 billion, net of adjustments, in respect of the TravelCenters of America acquisition. Sources of funding are fungible, but the majority of the group's funding requirements for new investment comes from cash generated by existing operations. For 2024-25 bp expects capital expenditure of around \$16 billion per annum, in line with our medium-term target of \$14-18 billion.

Total divestment and other proceeds for 2023 amounted to \$1.8 billion, including \$0.5 billion relating to the sale of the upstream business in Algeria and \$0.3 billion relating to the disposal of bp's interest in the bp-Husky Toledo refinery. Other proceeds for 2023 consist of \$0.5 billion of proceeds from the sale of a 49% interest in a controlled affiliate holding certain midstream assets onshore US.

Total divestment and other proceeds for 2022 amounted to \$3.1 billion, including \$0.7 billion relating to the formation of Azule Energy and \$0.3 billion relating to the disposal of bp's interest in the Sunrise oil sands project in Canada. Other proceeds for 2022 consist of \$0.6 billion of proceeds from the disposal of a loan note related to the Alaska divestment. The cash was received in the fourth quarter 2021, reported as a financing cash flow and was not included in other proceeds at the time due to potential recourse from the counterparty.

As at 31 December 2023, \$17.8 billion of proceeds were received against our target of \$25 billion of divestment and other proceeds between the second half of 2020 and 2025. bp continues to expect divestment and other proceeds of \$2-3 billion in 2024.

Net cash provided by (used in) financing activities

Net cash used in financing activities for the year ended 31 December 2023 was \$13.4 billion, compared with \$28.0 billion in 2022. Compared with 2022, financing cash flows in 2023 primarily reflected higher proceeds from, and lower repayments of, long-term debt as a result of activity to manage the group's debt portfolio.

In 2023, 1,263 million of ordinary shares (2022 1,900 million) were repurchased for cancellation for a total cost of \$7.9 billion (2022 \$10.0 billion), including transaction costs of \$43 million (2022 \$54 million).

Total dividends paid to shareholders in 2023 were 27.760 cents per share, 4.83 cents higher than 2022. This amounted to total dividends paid to shareholders of \$4.8 billion in 2023 (2022 \$4.4 billion). The board decided not to offer a scrip dividend alternative in respect of the 2023 and 2022 dividends.

Debt

Finance debt at the end of 2023 increased by \$5.0 billion from the end of 2022 primarily reflecting net long-term debt issuances. The finance debt ratio at the end of 2023 increased to 37.8% from 36.1% at the end of 2022.

Net debt at the end of 2023 decreased by \$0.5 billion from the 2022 year-end position. Gearing at the end of 2023 decreased to 19.7% from 20.5% at the end of 2022. The decrease in net debt and gearing primarily reflected cash flows generated from operating activities during the year. Net debt and gearing are non-IFRS measures. See Financial statements – Notes 26 and 27 for further information on finance debt and net debt.

For information on financing the group's activities see Financial statements – Note 29 and Liquidity and capital resources on [page 340](#).

Group performance continued

Group reserves and production^a

	2023	2022	2021
Estimated net proved reserves (net of royalties)			
Liquids (mmb)	3,747	3,997	10,124
Natural gas (bcf)	17,471	18,481	39,615
Total hydrocarbons ^b (mmboe)	6,759	7,183	16,954
<i>Of which:</i>			
Equity-accounted entities ^b	1,437	1,381	10,065
Production (net of royalties)			
Liquids (mb/d)	1,115	1,214	1,951
Natural gas (mmcf/d)	6,944	7,101	7,915
Total hydrocarbons ^c (mboe/d)	2,313	2,438	3,316
<i>Of which:</i>			
Subsidiaries	1,967	2,000	1,994
Equity-accounted entities ^c	345	439	1,322

a Because of rounding, some totals may not agree exactly with the sum of their component parts.

b 2021 includes bp's share of Rosneft and Russia joint ventures. See Supplementary information on oil and natural gas on [page 247](#) for further information. See [page 347](#) for more information on bp's oil and gas reserves including the impact of events occurring after the end of the reporting period.

c 2022 and 2021 include bp's share of Rosneft and Russia joint ventures (2022 193mboe/d). See Oil and gas disclosures for the group on [page 348](#) for further information.

Total hydrocarbon proved reserves at 31 December 2023, on an oil equivalent basis, including equity-accounted entities, decreased by 6% compared with 31 December 2022 (8% decrease for subsidiaries and 4% increase for equity-accounted entities). Natural gas decreased by 5% (7% decrease for subsidiaries and 6% increase for equity-accounted entities).

There was a net increase from acquisitions and disposals of 31mmboe within our US and North Africa subsidiaries.

Total hydrocarbon production for the group was 5.1% lower compared with 2022. The decrease comprised a 1.6% decrease (5.2% decrease for liquids and 1.3% increase for gas) for subsidiaries and a 21.3% decrease (16.0% decrease for liquids and 35.9% decrease for gas) for equity-accounted entities. The production decrease in the equity-accounted entities is due to absence of bp share of production from Rosneft.

Excluding the impact of Rosneft, total hydrocarbon production for the group was 2.6% higher compared with 2022. The increase comprised a 1.6% decrease (5.2% decrease for liquids and 1.3% increase for gas) for subsidiaries and a 36.1% increase (51.8% increase for liquids and 1.0% decrease for gas) for equity-accounted entities.

Gas & low carbon energy

Gas & low carbon energy segment comprises our gas & low carbon businesses. Our gas business includes regions^a with upstream activities that predominantly produce natural gas, integrated gas and power, and gas trading. Our low carbon business includes solar, offshore and onshore wind, hydrogen and CCS, and power trading. Power trading and marketing includes trading of both renewable and non-renewable power.

Financial and operating performance

	\$ million		
	2023	2022 ^b	2021 ^b
Sales and other operating revenues^c	50,297	56,255	30,840
Profit before interest and tax	14,081	14,688	2,166
Inventory holding (gains) losses★	(1)	8	(33)
RC profit before interest and tax	14,080	14,696	2,133
Net (favourable) adverse impact of adjusting items★ ^d	(5,358)	1,367	5,395
Underlying RC profit before interest and tax★	8,722	16,063	7,528
Taxation on an underlying RC basis	(2,730)	(4,367)	(1,677)
Underlying RC profit before interest	5,992	11,696	5,851
Depreciation, depletion and amortization	5,680	5,008	4,464
Exploration write-offs	362	2	43
Adjusted EBITDA★^e	14,764	21,073	12,035
Capital expenditure★			
Gas	3,025	3,227	3,180
Low carbon energy	1,256	1,024	1,561
	4,281	4,251	4,741

a The AGT and Middle East regions have been further subdivided by asset to allow reporting in either gas & low carbon or oil production & operations as appropriate.

b 2022 and 2021 include bp Bunge Bioenergia. From the first quarter of 2023, bp Bunge Bioenergia is reported within customers & products.

c Includes sales to other segments.

d See [page 338](#) for information on the cumulative impact of FVAEs.

e A reconciliation to RC profit before interest and tax is provided on [page 384](#).

Financial results

Sales and other operating revenues for 2023 are lower than 2022 due to lower realizations and lower volumes (including the impact of the disposal of our Algeria business) partially offset by higher gas marketing and trading revenues.

RC profit before interest and tax for 2023 was \$14,080 million compared with \$14,696 million for 2022.

Items which bp has classified as adjusting for 2023 had a net favourable impact of \$5,358 million including favourable fair value accounting effects (FVAEs)★ of \$8,859 million, relative to management's view of performance, partially offset by net impairment charges. See Financial statements – Notes 4 and 16 for further information on net impairment charges.

After adjusting RC profit for the net impact of items which bp has classified as adjusting, underlying RC profit before interest and tax for 2023 was \$8,722 million, compared with \$16,063 million for 2022. The decrease reflects

lower realizations, and a higher depreciation, depletion and amortization charge.

Items which bp has classified as adjusting for 2022 had a net adverse impact of \$1,367 million including adverse FVAEs of \$1,811 million, relative to management's view of performance, partially offset by a net impairment reversal.

See Financial statements – Note 5 for further information on segmental analysis.

Operational update

Reported production for 2023 was 929mboe/d, 2.9% lower than the same period in 2022.

Underlying production★ for the full year was 2.3% lower, mainly due to base decline, partly offset by major projects★ delivery.

Renewables pipeline★ at the end of the year was 58.3GW (bp net). In 2023 the pipeline grew by 21.1GW, including bp being awarded the rights to develop two North Sea offshore wind projects in Germany (4GW), increases to Lightsource bp's pipeline (5.3GW), and an increase in dedicated hydrogen renewables (12.4GW).

In renewables by the end of 2023 we had brought 6.2GW (bp net) developed renewables to FID★.

Strategic progress

Gas

In Indonesia, we announced that the first cargo of liquefied natural gas (LNG) produced by the new third liquefaction train at the Tangguh LNG facility, in Papua Barat, Indonesia, was safely loaded and sailed in October. The start-up of Tangguh Train 3 has added 3.8 million tonnes per annum (mtpa) of gross LNG production capacity to the existing facility, bringing total plant capacity to 11.4mtpa gross.

In Australia, we purchased Shell's 27% interest in the offshore Browse project.

In India, the KGD6-MJ project offshore started at the end of June. Along with the two other KG D6 developments production is expected to account for around one third of India's current domestic gas production and meet approximately 15% of India's gas demand.

Gas & low carbon energy continued

In Trinidad, we restructured the ownership and commercial framework of Atlantic LNG joint venture with its partners Shell and the National Gas Company of Trinidad & Tobago. The restructuring helps provide the certainty required for sanctioning the next wave of upstream gas projects and secures the long-term LNG equity offtake for shareholders, including bp. In addition, we and our partner Shell, were awarded three deepwater exploration blocks off Trinidad's east coast.

In Senegal, we have exited the Cayar Offshore Profond production sharing contract and transferred operatorship of Yakaar-Teranga gas resource to Kosmos Energy.

In March 2023 we confirmed that, together with ADNOC, we made a non-binding offer to take NewMed Energy private through an acquisition of the free float and a partial acquisition of Delek's stake, which would result in bp and ADNOC holding 50% of NewMed Energy.

On 14 February 2024 bp announced the formation of a new joint venture in Egypt (bp 51%, ADNOC 49%) under which, subject to regulatory approvals, bp will contribute its interests in three non-operated development concessions as well as exploration agreements in Egypt, and ADNOC will make a proportionate cash contribution.

LNG portfolio

- In July bp and OMV announced the signing of a long-term agreement to supply up to 1mtpa of LNG for 10 years from 2026. This builds on bp in May agreeing 2bcm per year of regasification capacity for 20 years at the Gate terminal in Rotterdam.
- In September we announced our third long-term LNG offtake contract from Woodfibre's British Columbia LNG facility with firm offtake totalling 1.95mtpa and any additional production on a flexible offtake basis.
- In November we signed a nine-year sales and purchase agreement (SPA) with state-owned Oman LNG to buy one million metric tonnes per annum of LNG starting 2026.

See Oil and gas disclosures for the group on [page 342](#) for more information on oil and gas operations in the regions.

Low carbon energy Hydrogen and carbon capture and storage

In hydrogen and carbon capture and storage (CCS), we progressed an additional 1.1mtpa net to bp of hydrogen opportunities for a total of 2.9mtpa to project pipeline (concept development stage).

Our progress in hydrogen is focused on growing scale in key regionally integrated markets, such as Europe and the US, using our refineries as demand anchors. As hydrogen markets develop, we aim to create a portfolio of globally advantaged supply hubs.

- In February 2023 we launched plans for a low carbon green hydrogen★ cluster called HyVal, at our Castellón refinery in the Valencia region of Spain.
- In the UK, in March 2023 we announced that two bp-led lower carbon projects, Net Zero Teesside Power and H2Teesside, part of the East Coast Cluster, were selected to proceed to negotiations for government support.
- In April we signed an agreement with Harbour Energy to take 40% stake in the Viking CCS project in the North Sea.
- In October in the US, the Midwest Alliance for Clean Hydrogen (MachH2), of which we are a member, was selected by the US Department of Energy's Office of Clean Energy.
- Demonstrations to develop a Regional Clean Hydrogen Hub. Under the proposals, it would include blue hydrogen★ production near our Whiting refinery.

Renewables and power

Offshore wind

In offshore wind, in 2023 we continued to build our position with access to the German and Korean markets in addition to the UK and US. These positions in offshore wind will enable us to leverage integration opportunities with green hydrogen, EV mobility and power trading as we build the business.

- In Scotland, we announced a successful bid in the Innovation and Targeted Oil and Gas (INTOG) Scottish offshore wind leasing round, bp's first step in floating offshore wind.

- In Korea, we announced the formation of a joint venture with Deep Wind Offshore to develop offshore wind opportunities in South Korea, which includes four projects across the Korean peninsula with a potential generating capacity of up to 6GW.
- In July we were awarded the rights to develop two North Sea offshore wind projects in Germany. The sites are located 130km and 150km offshore, in water depths of about 40m, and have a total potential generating capacity of 4GW, raising our global offshore wind pipeline to 9.3GW.
- In January 2024, we signed an agreement with Equinor under which we will restructure our US offshore wind project investments. Subject to approvals, we will be able to assume full ownership of the Beacon projects, and Equinor will assume full ownership of the Empire projects. bp plans to independently pursue future US offshore wind opportunities.

Onshore renewables

In solar, we announced we have agreed to acquire the remaining 50.03% of Lightsource bp (LSbp). LSbp is one of the world's leading developers and operators of utility-scale solar and battery storage assets, with 1,200 employees in 19 countries. LSbp has a hopper of 39GW of renewables pipeline and an additional 25GW of early stage opportunities. The transaction is expected to close in the second half of 2024, subject to regulatory approvals.

In support of hydrogen projects, the onshore renewables pipeline has increased by 12.4GW.

Power trading

In January 2024 we announced we have agreed to acquire GETEC ENERGIE GmbH, a leading independent supplier of energy to commercial and industrial customers in Germany, subject to regulatory approvals.

Estimated net proved reserves and production^a (net of royalties)

	2023	2022	2021
Estimated net proved reserves (net of royalties)			
Crude oil ^b (mmb)	128	151	228
Natural gas liquids (mmb)	1	9	32
Total liquids ^{★c}	129	160	260
Natural gas ^c (bcf)	8,635	9,708	11,882
Total hydrocarbons ^{★c} (mmboe)	1,618	1,834	2,309
<i>Of which equity-accounted entities^d:</i>			
Liquids (mmb)	—	—	—
Natural gas (bcf)	—	—	—
Total hydrocarbons (mmboe)	—	—	—
Production (net of royalties)			
Crude oil ^b (mb/d)	92	103	97
Natural gas liquids (mb/d)	13	15	16
Total liquids (mb/d)	105	118	113
Natural gas (mmcf/d)	4,778	4,866	4,632
Total hydrocarbons (mboe/d)	929	957	912
<i>Of which equity-accounted entities^e:</i>			
Liquids (mb/d)	2	2	3
Natural gas (mmcf/d)	—	—	—
Total hydrocarbons (mboe/d)	2	2	3
Average realizations^{★f}			
Liquids (\$/bbl)	77.03	89.86	63.60
Natural gas (\$/mcf)	6.13	8.91	5.11
Total hydrocarbons (\$/boe)	40.21	56.34	33.75

a Because of rounding, some totals may not agree exactly with the sum of their component parts.

b Includes condensate and bitumen.

c Includes 2.2 million barrels of total liquids (3 million barrels at 31 December 2022 and 10 million barrels at 31 December 2021) and 430 billion cubic feet of natural gas (547 billion cubic feet at 31 December 2022 and 690 billion cubic feet at 31 December 2021) in respect of the 30% non-controlling interest in BP Trinidad and Tobago LLC.

d bp's share of reserves of equity-accounted entities in the gas & low carbon energy segment.

e bp's share of production of equity-accounted entities in the gas & low carbon energy segment.

f Realizations are based on sales by consolidated subsidiaries only – this excludes equity-accounted entities.

Renewables

	2023	2022	2021
Renewables (bp net, GW)			
Installed renewables capacity	2.7	2.2	1.9
Developed renewables to FID	6.2	5.8	4.4
Renewables pipeline	58.3	37.2	23.1
<i>of which by geographical area:</i>			
Renewables pipeline – Americas	18.8	17.0	16.2
Renewables pipeline – Asia Pacific	21.3	11.8	1.4
Renewables pipeline – Europe	14.6	8.3	5.3
Renewables pipeline – Other	3.5	0.1	0.2
<i>of which by technology:</i>			
Renewables pipeline – offshore wind	9.3	5.2	3.7
Renewables pipeline – onshore wind	12.7	6.3	—
Renewables pipeline – solar	36.3	25.7	19.4
Total developed renewables to FID and renewables pipeline	64.5	43.0	27.5

Oil production & operations

Oil production & operations segment comprises regions^a with upstream activities that predominantly produce crude oil, including bpx energy.

Financial and operating performance

	\$ million		
	2023	2022	2021
Sales and other operating revenues^b	24,904	33,193	24,519
Profit before interest and tax	11,191	19,714	10,509
Inventory holding (gains) losses★	—	7	(8)
RC profit before interest and tax	11,191	19,721	10,501
Net (favourable) adverse impact of adjusting items★	1,590	503	(209)
Underlying RC profit before interest and tax★	12,781	20,224	10,292
Taxation on an underlying RC basis	(5,998)	(9,143)	(4,123)
Underlying RC profit before interest	6,783	11,081	6,169
Depreciation, depletion and amortization	5,692	5,564	6,528
Exploration write-offs	384	383	125
Adjusted EBITDA★^c	18,857	26,171	16,945
Capital expenditure★	6,278	5,278	4,838

a The AGT and Middle East regions have been further subdivided by asset to allow reporting in either gas & low carbon or oil production & operations as appropriate.

b Includes sales to other segments.

c A reconciliation to RC profit before interest and tax is provided on [page 384](#).

Financial results

Sales and other operating revenues for 2023 were lower than 2022 mainly due to lower realizations.

RC profit before interest and tax for 2023 was \$11,191 million compared with \$19,721 million for 2022.

Adjusting items for 2023 had a net adverse impact of \$1,590 million mainly relating to net impairment charges. See Financial statement – Note 4 for further information on net impairment charges.

After adjusting RC profit for the net adverse impact of adjusting items, underlying RC profit before interest and tax for 2023 was \$12,781 million, compared with \$20,224 million for 2022. The lower profit reflects lower realizations, and the impact of portfolio changes, partly offset by higher volumes.

Adjusting items for 2022 had a net adverse impact of \$503 million principally relating to impairments as a result of expected portfolio changes, partially offset by gains on disposals, mainly arising from the contribution of our Angolan business to Azule Energy.

See Financial statements – Note 5 for further information on segmental analysis.

Operational update

Reported production for 2023 was 1,383mboe/d, 6.7% higher than the same period of 2022. Underlying production★ for the year was 6.3% higher compared with the same period of 2022 reflecting bpx energy performance and major projects★ and base performance.

Strategic progress

- Start-up of our fifth platform in the Gulf of Mexico, the Mad Dog Phase 2 Argos platform was announced (bp 60.5%, operator), with a gross production capacity of up to 140,000 barrels of oil per day.
- We successfully started production from the Seagull oil and gas field and spudded the first of two wells for the Murlach oil and gas field in the UK North Sea.
- We sanctioned the Argos Southwest Expansion project to tie back into the Argos facility.
- Bingo, the second central processing facility of bpx energy in the Permian Basin was successfully brought online.
- Partners approved the expansion of the Shell-operated Great White development in the Gulf of Mexico through a phased three-well campaign (bp 33.33%).

- The Azeri Central East (ACE) platform topsides unit was installed in the field and the first pre-drill well was spudded. This is the seventh and most automated platform installed in the giant Azeri Chirag Gunashli (ACG) field with approximately 100,000 barrels a day installed capacity.
- The contract was executed for the Bumerangue block (bp 100%), in the Santos Basin, in Brazil.
- We successfully bid on the Tupinambá block, an area of 3,056km² located in the Santos Pre-Salt Basin, in Brazil (bp 100%).
- Azule Energy signed a production sharing agreement for Block 31/21, which is a significant stride towards advancing exploration in the Lower Congo Basin.
- Azule Energy progressed four new exploration agreements in blocks adjacent to existing operations (46, 47, 14/23 and 18/15).

See Oil and gas disclosures for the group on [page 342](#) for more information on oil and gas operations in the regions.

Estimated net proved reserves and production^a (net of royalties)

	2023	2022	2021
Estimated net proved reserves (net of royalties)			
Crude oil ^b (mmb)	3,193	3,380	3,872
Natural gas liquids (mmb)	426	457	361
Total liquids	3,618	3,836	4,234
Natural gas (bcf)	8,836	8,774	11,499
Total hydrocarbons [★] (mmboe)	5,142	5,349	6,216
<i>Of which equity-accounted entities^c:</i>			
Liquids (mmb)	1,001	968	795
Natural gas (bcf)	2,527	2,394	4,880
Total hydrocarbons (mmboe)	1,437	1,381	1,637
Production (net of royalties)			
Crude oil ^b (mb/d)	910	866	898
Natural gas liquids (mb/d)	100	86	81
Total liquids (mb/d)	1,010	952	978
Natural gas (mmcf/d)	2,165	1,998	1,903
Total hydrocarbons (mboe/d)	1,383	1,297	1,307
<i>Of which equity-accounted entities^d:</i>			
Liquids (mb/d)	269	176	140
Natural gas (mmcf/d)	432	436	468
Total hydrocarbons (mboe/d)	343	251	221
Average realizations^{★e}			
Liquids (\$/bbl)	72.09	89.62	62.57
Natural gas (\$/mcf)	4.17	10.46	5.49
Total hydrocarbons (\$/boe)	58.34	82.23	55.65

a Because of rounding, some totals may not agree exactly with the sum of their component parts.

b Includes condensate and bitumen.

c bp's share of reserves of equity-accounted entities in the oil production & operations segment, which includes bp's share of reserves of Russia joint ventures in 2021. During 2023 gas operations in Angola, Argentina, Bolivia, Mexico and Norway were conducted through equity-accounted entities.

d bp's share of production of equity-accounted entities in the oil production & operations segment. 2022 and 2021 include bp's share of production of Russia joint ventures.

e Realizations are based on sales by consolidated subsidiaries only – this excludes equity-accounted entities.

Customers & products

Customers & products segment comprises our customer-focused businesses, which include convenience and retail fuels, EV charging, as well as *Castrol*, aviation and B2B and midstream. It also includes our products businesses, refining & oil trading, as well as our bioenergy businesses.

Financial and operating performance

	\$ million		
	2023	2022	2021
Sales and other operating revenues^a	160,215	188,623	130,095
Profit before interest and tax	2,993	10,235	5,563
Inventory holding (gains) losses [★]	1,237	(1,366)	(3,355)
Replacement cost (RC) profit before interest and tax	4,230	8,869	2,208
Net (favourable) adverse impact of adjusting items ^{★b}	2,183	1,920	1,044
Underlying RC profit before interest and tax[★]	6,413	10,789	3,252
Of which:			
customers – convenience & mobility	2,644	2,966	3,052
<i>Castrol – included in customers</i>	730	700	1,037
products – refining & trading	3,769	7,823	200
Taxation on an underlying RC basis	(1,454)	(2,308)	(1,210)
Underlying RC profit before interest	4,959	8,481	2,042
Depreciation, depletion and amortization	3,548	2,870	3,000
Of which:			
customers – convenience & mobility	1,736	1,286	1,306
<i>Castrol – included in customers</i>	167	153	150
products – refining & trading	1,812	1,584	1,694
Adjusted EBITDA^{★c}	9,961	13,659	6,252
Of which:			
customers – convenience & mobility	4,380	4,252	4,358
<i>Castrol – included in customers</i>	897	853	1,187
products – refining & trading	5,581	9,407	1,894
Capital expenditure[★]	5,253	6,252	2,872
Of which:			
customers – convenience & mobility	3,135	1,779	1,564
<i>Castrol – included in customers</i>	262	235	173
products – refining & trading	2,118	4,473	1,308

a Includes sales to other segments.

b See [page 338](#) for information on the cumulative impact of FVAEs.

c A reconciliation to RC profit before interest and tax by business is provided on [page 351](#).

Financial results

Sales and other operating revenues in 2023 were lower than in 2022, mainly due to lower product and crude prices.

RC profit before interest and tax for 2023 was \$4,230 million, compared with \$8,869 million for 2022.

Items which bp has classified as adjusting for 2023 had a net adverse impact of \$2,183 million (including adverse fair value accounting effects of \$86 million – relative to management's view of performance), of which \$1,614 million related to impairments of assets, which included an impairment of the Gelsenkirchen refinery. See Financial statement – Note 4 for further information on impairments.

After adjusting RC profit for the net adverse impact of items, which bp classified as adjusting, underlying RC profit before interest and tax was \$6,413 million, compared with \$10,789 million for 2022. The lower result primarily reflects the impact of lower refining margins and a lower oil trading performance.

Items which bp has classified as adjusting for 2022 had a net adverse impact of \$1,920 million (including favourable fair value accounting effects of \$309 million – relative to management's view of performance), of which \$1,874 million related to impairment of assets, which included an impairment of the Gelsenkirchen refinery.

Customers – the convenience and mobility result, excluding *Castrol*, for 2023 was lower than 2022. The benefits of a strong convenience performance and higher volumes, were more than offset by higher costs, including increased expenditure in our transition growth[★] engines, inflationary impacts and increased depreciation.

Castrol result for 2023 was higher than 2022, with higher margins partly offset by higher costs and adverse foreign exchange impacts.

Products – the result for 2023 was significantly lower than 2022. In refining, the result was primarily impacted by significantly lower industry refining margins, higher turnaround activity, albeit with a lower margin impact, partly offset by a lower level of unplanned maintenance activity. The contribution from oil trading was also significantly lower, as the first half of 2022 benefited from an exceptionally strong oil trading performance.

Operational update

bp-operated refining availability[★] for the full year was 96.1%, higher compared with 94.5% in 2022, due to a lower level of unplanned maintenance activity.

Strategic progress

Convenience & retail fuels

In support of our convenience transition growth engine delivery, in May 2023, we completed our purchase of TravelCenters of America. It is one of the biggest networks of roadside travel centres in the US, adding a network of around 290 sites to our retail network, strategically located on major highways across the US. To support growing demand for lower carbon mobility solutions, over time we plan to expand and develop new offers, such as electric vehicle (EV) charging, biofuels, renewable natural gas and hydrogen.

Excluding TravelCenters of America, convenience performance was strong, with 9%^{ab} convenience gross margin[★] growth in 2023, compared to 2022 at constant foreign exchange. Strategic convenience sites[★] grew to 2,850, an increase of more than 450 sites compared to 2022. In addition:

- In March 2023 we signed a new agreement with Rontec, one of the UK's largest roadside retail networks, to supply around two billion litres of fuel over the next five years to more than 60 of Rontec's sites.

- In July bp and Lekkerland extended their successful partnership to deliver *REWE To Go* stores at *Aral* retail sites until 2028. This is our largest European convenience supply agreement and brings together Germany's largest forecourt brand with one of the country's leading convenience specialists in support of our convenience growth engine delivery.
- In August we signed an agreement with Auchan to extend its successful strategic convenience partnership in Poland, with plans to add more than 100 EasyAuchan stores to its retail network by the end of 2025.
- In September 2023, we strengthened our BPme Rewards loyalty scheme with the launch of loyalty pricing, giving customers exclusive discounts on retail store products at around 300 bp-owned retail sites across the UK.
- In November we entered into an agreement to sell the Türkiye ground fuels business to Petrol Ofisi. This includes the group's interest in three joint venture terminals in Türkiye. Completion of the sale is subject to regulatory approvals.

EV charging

EV charging continues to show strong momentum. EV charge points★ installed and energy sold in the year grew by around 35% and 150% respectively, compared to 2022, with charge points now over 29,000. On 1 December bp and Iberdrola formed a joint venture to accelerate EV charging infrastructure roll-out in Spain and Portugal, with plans to invest up to €1 billion and install 5,000 fast★ EV charge points by 2025 and around 11,700 by 2030. In addition:

- In March 2023 *bp pulse* announced a new global mobility agreement with Uber, which will see the companies work together to help accelerate Uber's commitment to become a global zero-tailpipe emissions mobility platform by 2040.
- In August we announced we had approved \$500 million of investment in the US to begin building our EV network over the next two to three years. As part of this investment, in October 2023, we announced we had entered into an agreement with Tesla for the future purchase of \$100 million of ultra-fast★ chargers.
- In September *bp pulse*, The EV Network and NEC Group, launched the UK's largest public EV charging hub at the NEC campus in Birmingham, UK. The new *Gigahub* at the NEC has capacity to charge up to 180 EVs simultaneously.
- In January 2024 we continued to invest in fast-growing southern districts in China, and acquired 3,000 charge points through the bp Xiajou joint venture.

Castrol

Castrol continued to grow its independent branded workshops, adding around 4,500 workshops in 2023, compared to 2022, with workshops now over 34,000 in total. *Castrol* also strengthened its market leading position in advanced EV-fluids, as now three out of four of the world's major vehicle manufacturers use *Castrol ON* products as part of their factory fill^c.

In addition:

- In June *Castrol* signed a strategic co-operation protocol with Yiwu TNFia, one of the largest automobile service chains in East China, positioning *Castrol* to expand its share of products in Yiwu TNFia's large and growing network of auto workshops.

Castrol continued to invest in its technology centres in 2023:

- In May *Castrol* opened its new EV lab at *Castrol China Technology Centre* in Shanghai, to focus on developing and testing EV fluids. The expansion supports bp's strategy to drive lower-carbon mobility in China and to help customers achieve their sustainability goals.
- In September *Castrol* opened the *Castrol Americas Technology Center*, in Wayne, New Jersey. This is a 12,000 square foot, state-of-the-art laboratory to develop and test fluids for EVs, engine and driveline oils and industrial lubricants.

Bioenergy

In October bp's Archaea Energy announced the official start-up of its original Archaea Modular Design (AMD) renewable natural gas plant in Medora, Indiana, located next to a landfill site owned by Rumpke Waste and Recycling.

- In December bp's Archaea Energy announced it had brought two more renewable natural gas plants online, the Monty plant in Kentucky and the Red Top plant in California.

In addition:

- In February 2023 bp and BHP, one of the world's largest iron ore producers, announced a partnership to trial the use of blended diesel with hydrogenated vegetable oil (HVO) to assist BHP to reduce carbon emissions from its iron ore operations in Western Australia.
- In March 2023 Air bp announced the first sale of International Sustainability and Carbon Certification (ISCC) EU sustainable aviation fuel produced at bp's Castellón refinery in Spain, to the LATAM Group, one of Latin America's largest airlines.
- In April our Rotterdam refinery in the Netherlands, became the first bp refinery to co-process Nuseed Carinata Oil as part of our partnership with Nuseed. Nuseed Carinata Oil is a sustainable low carbon biofuel feedstock which we plan to use in our refineries, as well as onward marketing.
- In November Air bp collaborated with Virgin Atlantic, Rolls Royce, Boeing, and others, to fuel the first 100% sustainable aviation fuel (SAF) transatlantic flight by a commercial airline. The SAF was a blend derived from inputs supplied by Air bp and Virent. Together, this enabled up to 70% lifecycle carbon emission savings compared to the conventional jet fuel it replaced.

Refining

We continue to high grade our portfolio:

- On 28 February 2023 bp completed the sale of its 50% interest in the bp-Husky Toledo refinery in Ohio, US, to Cenovus Energy, its partner in the facility.
- In May our Cherry Point refinery in the US successfully commissioned the hydrocracker improvement project and cooling water infrastructure project. The new vacuum tower and cooling water tower are now online and are expected to improve availability, reduce maintenance costs and CO₂ emissions.

a Nearest equivalent IFRS measure to change in convenience gross margin:
Change in replacement cost profit before interest and tax for the customers & products segment is -52% for 2023 compared with 2022.

b At constant foreign exchange – values are at end 2023 foreign exchange rates, excluding TravelCenters of America and adjusted for other portfolio changes.

c Based on GlobalData report for 2023 for top 20 selling global OEMs (total new vehicle sales).

Other businesses & corporate

Other businesses & corporate comprises innovation & engineering, bp ventures, launchpad, regions, corporates & solutions, our corporate activities & functions and any residual costs of the Gulf of Mexico oil spill. From the first quarter 2022 the results of Rosneft, previously reported as a separate segment, are also included in other businesses & corporate. For more information see Financial statements – Note 1 Significant accounting policies, judgements, estimates and assumptions – Investment in Rosneft.

Financial and operating performance

	\$ million		
	2023	2022	2021
Sales and other operating revenues^a	2,657	2,299	1,724
Profit (loss) before interest and tax	(903)	(26,737)	(89)
Inventory holding (gains) losses★	—	—	(259)
Replacement cost (RC) profit (loss) before interest and tax	(903)	(26,737)	(348)
Net (favourable) adverse impact of adjusting items★ ^b	37	25,566	1,685
Underlying RC profit (loss) before interest and tax★	(866)	(1,171)	1,337
Taxation on an underlying RC basis	322	439	25
Underlying RC profit (loss) before interest	(544)	(732)	1,362
Depreciation, depletion and amortization	1,008	876	813
Capital expenditure★	441	549	397

a Includes sales to other segments.

b See [page 338](#) for information on the cumulative impact of FVAEs.

Financial results

RC loss before interest and tax for 2023 was \$903 million, compared with \$26,737 million for 2022.

Adjusting items for 2023 had a net adverse impact of \$37 million. Adjusting items include impacts of fair value accounting effects, which were a favourable impact of \$630 million. Adjusting items also include impacts of environmental charges, which were an adverse impact of \$604 million.

Adjusting items for 2022 had a net adverse impact of \$25,566 million mainly relating to bp's decision to exit its 19.75% shareholding in Rosneft and including adverse fair value accounting effects of \$1,381 million.

After adjusting RC profit for the adjusting items, underlying RC loss before interest and tax for 2023 was \$866 million, compared with a loss of \$1,171 million for 2022, reflecting increased interest income.

Strategic progress

We continued to invest in a portfolio of technology businesses, which we see as having the potential for high growth and to benefit and extend our transition growth★ engines, through bp ventures. Strategically significant investments made through 2023 include:

- In April Magenta Mobility, one of India's largest providers of electric mobility for last-mile delivery, the journey from hub to customer.
- In April Service4Charger, a Germany-based provider of intelligent, scalable e-mobility solutions and full-service implementation, including the planning, installation, operation and maintenance of charging infrastructure for electric vehicles (EVs).
- In June WasteFuel, a US biofuels company, which is planning to develop a global network of plants to convert municipal and agricultural waste into bio-methanol, a biofuel that could play a significant role in decarbonizing hard-to-abate sectors like shipping.

- In July Electric Hydrogen, a US based developer of high-efficiency and lower cost electrolyzers with the aim of delivering its first 100MW product in 2024.
- In August Dynamon, a UK-based software company, which provides advanced data analytics and simulation software tools that help transport and logistics companies adopt low carbon energy solutions such as EV charging infrastructure as they look to electrify their fleets.
- In August Advanced Ionics, a US-based company developing a new category of hydrogen electrolyzers, supporting the expansion of green hydrogen★ production.

In 2022 we took the decision to no longer seek new companies for bp's launchpad accelerator, with our focus now to scale and build businesses within our five transition growth engines – bioenergy, convenience, EV charging, renewables & power and hydrogen.

Other businesses & corporate excluding Rosneft

	\$ million		
	2023	2022	2021
Profit (loss) before interest and tax	(903)	(2,704)	(2,777)
Inventory holding (gains) losses	—	—	—
Replacement cost (RC) profit (loss) before interest and tax	(903)	(2,704)	(2,777)
Net (favourable) adverse impact of adjusting items	37	1,533	1,394
Underlying RC profit (loss) before interest and tax	(866)	(1,171)	(1,383)
Taxation on an underlying RC basis	322	439	294
Underlying RC profit (loss) before interest	(544)	(732)	(1,089)

Rosneft

	\$ million		
	2023	2022	2021
Profit (loss) before interest and tax	—	(24,033)	2,688
Inventory holding (gains) losses	—	—	(259)
Replacement cost (RC) profit (loss) before interest and tax	—	(24,033)	2,429
Net (favourable) adverse impact of adjusting items	—	24,033	291
Underlying RC profit (loss) before interest and tax	—	—	2,720
Taxation on an underlying RC basis	—	—	(269)
Underlying RC profit (loss) before interest	—	—	2,451

	2023	2022	2021
Estimated net proved reserves (net of royalties) (bp share)			
Crude oil ^a (mmb)	—	—	5,490
Natural gas liquids (mmb)	—	—	140
Total liquids ^{a,b}	—	—	5,630
Natural gas ^c (bcf)	—	—	16,233
Total hydrocarbons ^a (mmboe)	—	—	8,429
Production^d (net of royalties)			
Crude oil ^a (mb/d)	—	144	857
Natural gas liquids (mb/d)	—	—	3
Total liquids (mb/d)	—	144	860
Natural gas (mmcf/d)	—	238	1,380
Total hydrocarbons (mboe/d)	—	185	1,098

a Includes condensate.

b Includes 396mmb at 31 December 2021 for the 7.04% non-controlling interest in Rosneft-held assets in Russia including 22 million barrels at 31 December 2021 held through bp's interests in Russia other than Rosneft.

c Includes 1,656bcf at 31 December 2021 for the 10.01% non-controlling interest in Rosneft-held assets in Russia including 621bcf at 31 December 2021 held through bp's interests in Russia other than Rosneft.

d 2022 reflects bp's estimated share of Rosneft production for the period 1 January to 27 February only. The estimated share of production for that period has been averaged over the full year.

Sustainability at bp

Our sustainability frame translates our purpose into action and underpins our strategy to become an integrated energy company. It focuses on three areas – getting to net zero, improving people's lives and caring for our planet.

Reporting on sustainability

In this section, we cover selected sustainability issues along with information in the following areas:

- Getting to net zero, see [pages 48-51](#)
- Improving people's lives, see [page 53](#)
- Caring for our planet, see [page 54](#)
- Climate-related financial disclosures, see [pages 55-68](#)

- Our approach – safety, ethics and compliance, our people, 'Who we are' (our beliefs), see [pages 69-72](#)



We report on our progress embedding sustainability and delivering our frame in our latest sustainability report at bp.com/sustainability

Getting to net zero

Our ambition to be a net zero company by 2050 or sooner, and to help the world get to net zero, remains unchanged.

We have worked to deliver our 10 net zero aims since we launched them in 2020. We believe our ambition and aims, taken together, are consistent with the goals of the Paris Agreement.

By setting a path that enables us to make a positive contribution, working to build and participate in many of the new net zero value chains the world will need, our ambition and aims support the world's progress towards the Paris Agreement.



Read more on consistency with the Paris goals on [page 14](#)

Net zero performance

Progress against our five aims to help bp get to net zero in 2023.

Aim	Measure/coverage	2023 performance	2025 target	2030 aim	2050, or sooner, aim
1 Net zero operations★	Scope 1 and 2★	41% ^a	20% ^a	50% ^a	Net zero★
2 Net zero production★	Scope 3★	13% ^a	10-15% ^a	20-30% ^a	Net zero
3 Net zero sales★	Average lifecycle carbon intensity	3% ^b	5% ^b	15-20% ^b	Net zero
4 Reducing methane	Methane intensity★	0.05% ^c	0.20% ^d	50% reduction ^d	
5 More \$ into transition	Transition growth investment★	\$3.8bn	\$6-8bn	\$7-9bn	

1

Aim 1 is to be net zero across our entire operations on an absolute basis by 2050 or sooner.

We are targeting a 20% reduction in our aim 1 operational emissions by 2025 and aim for a 50% reduction by 2030 against our 2019 baseline of 54.5MtCO₂e^e.

Our combined Scope 1 and 2 emissions, covered by aim 1 were 32.1MtCO₂e – a decrease

of 41% from our 2019 baseline of 54.5MtCO₂e^f. The total decrease includes 17.9MtCO₂e attributable to divestments and 5.0MtCO₂e in sustainable emission reductions (SERs)★.

Scope 1 (direct) emissions, covered by aim 1, were 31.1MtCO₂e – an overall increase from 30.4MtCO₂e in 2022. Of these Scope 1 emissions, 30.2MtCO₂e were carbon dioxide and 1.0MtCO₂e methane^g. Overall emissions increased due to temporary operational changes, project start-ups and growth, which was partially offset by delivery of SERs and divestments.

In 2023 our Scope 2^f (indirect) emissions, covered by aim 1, decreased by 0.4MtCO₂e, to 1.0MtCO₂e, compared with 2022. Lower carbon power agreements, including those at our Cherry Point and Whiting refineries, contributed to this decrease.

We report our Scope 1 and 2 emissions on an operational control and equity share basis in our ESG datasheet.



bp.com/ESGdata

^a Reduction in absolute emissions against 2019 baseline.

^b Reduction in the average carbon intensity of sold energy products against the 2019 baseline. The percentage change is calculated from the source data instead of the rounded carbon intensity number.

^c Methane intensity is calculated using our existing methodology and, while it reflects progress in reducing methane emissions, will not directly correlate with progress towards delivering the 2025 target under aim 4.

^d The 0.20% methane intensity target is based on our measurement approach. The 50% reduction we are aiming for is against a new baseline which we plan to set based on the new measurement approach. Methane intensity is currently calculated using our existing methodology.

^e Changed from 54.4MtCO₂e for consistency in rounding.

^f Scope 2 emissions on a market basis.

^g Due to rounding some totals may not equal the sum of their component parts. This does not affect the underlying values.

2

Aim 2 is to be net zero on an absolute basis across the carbon in our upstream★ oil and gas production★ by 2050 or sooner.

This is our Scope 3 aim and it is based on bp's net share of production^h (around 361MtCO₂ in 2019). It is associated with the CO₂ emissions from the assumed combustion of upstream production of crude oil, natural gas and natural gas liquids (NGLs).

We are targeting a 10-15% reduction by 2025 and will aim for 20-30% by 2030 against our 2019 baseline, underpinned by our aim to reduce our oil and gas production from 2019 levels by around 25% by 2030.

The estimated Scope 3 emissions from the carbon in our upstream oil and gas production were 315MtCO₂ in 2023, a slight increase from 307MtCO₂ in 2022, mainly associated with an increase in underlying production★ due to the ramp-up of major projects★ and higher asset performance.

Since 2019 our estimated Scope 3 emissions covered by aim 2 have reduced by 13%, which is around the mid-range of our 2025 target of a 10-15% reduction against our 2019 baseline. Our plans and forward path for emissions covered by aim 2 will take into account growth in underlying production due to major project start-ups out to 2025, deferred divestments and growth in bpx energy production.

3

Aim 3 is to reduce to net zero the average carbon intensity of sold energy products★ by 2050 or sooner.

This aim applies to the average carbon intensity of sold energy products. It is estimated on a lifecycle (full value chain) basis from the use, production, and distribution of sold energy products per unit of energy (MJ) delivered.

In 2023 the average carbon intensity of the energy products we sell was 77gCO₂e/MJ.

Average carbon intensity of sold energy products (gCO₂e/MJ)^{ijk}

	2023	2022	2021	2020	2019
Average carbon intensity of sold energy products	77	77	78	77	79
Refined energy products★	92	92	92	92	95
Gas products	67	67	67	67	68
Bioproducts	40	43	43	44	47
Power products	50	52	56	58	56

This represents a 3%^l decrease from our 2019 baseline, driven by changes in the sold product mix, methodology updates and the impact of portfolio changes such as the full year accounting of sales by EDF Energy Services.

4

Aim 4 is to install methane measurement at all our existing major oil and gas processing sites by 2023, publish the data, and then drive a 50% reduction in methane intensity★ of our operations.

We will work to influence our joint ventures★ to set their own methane intensity targets of 0.2%.

We maintained our methane intensity at 0.05% in 2023^c. Methane emissions from upstream operations, used to calculate our intensity, increased by around 10% from 28kt in 2022 to 31kt in 2023. This increase is primarily from changes in flaring in our Azerbaijan-Georgia-Türkiye region and Tangguh operations. It was offset by methane emissions reductions from delivery of SERs. Marketed gas volumes increased by 4% to 3,332bcf in 2023.

We intend to take stock of our targets under aim 4 based on what we learn from our ongoing methane measurement activities and to take account of the Oil & Gas Decarbonization Charter announced at COP28, which we signed in 2023. The Charter includes aims to achieve net zero operations by or before 2050, and zero routine flaring and near-zero methane emissions by 2030.

5

Aim 5 is to increase the proportion of investment we make into our non-oil and gas businesses.

In 2023 transition growth investment★ was \$3.8 billion. This compares to \$0.6 billion in 2019 and \$4.9 billion in 2022. It represents around 23% of total capital expenditure★ for the year, which compares to around 3% in 2019 and around 30% in 2022. The change from 2022 reflects lower inorganic investment in our transition growth★ engines, outweighing an increase in organic investment in them over 2023.

As we highlighted in our 2022 report, it is not always possible to predict the timing of our capital investments, which means the progress we make on aim 5 can be expected to fluctuate – as it did between 2021 and 2023.

Some of our capital investment goes into large transactions – for example, our acquisitions of Archaea Energy and EDF Energy Services in 2022 and TravelCenters of America in 2023. This is true both for the level of investment and for the proportion of our overall investment going into our transition growth engines, or into the low carbon activity★ subset.

Our disciplined approach to capital investment means that individual investments will be made when we consider there to be a clear and compelling business case, in line with our balanced set of investment criteria, see [page 30](#).

Aim 5 transition growth investment (annual \$ billion)

	2023	2022	2021	2020
More \$ into the transition	3.8	4.9	2.4	1.0

^h Excluding bp's share of production in Rosneft. On 27 February 2022, bp announced that it intends to exit its 19.75% shareholding in Rosneft Oil Company (Rosneft). bp ceased equity accounting for Rosneft from this date.

ⁱ See the *bp Basis of Reporting 2023* for more information on the list of energy products covered at bp.com/basisofreporting.

^j The aggregate lifecycle emissions and energy values used in the calculation of the average carbon intensity of sold energy products are provided in our ESG datasheet at bp.com/ESGdata.

^k Previously reported aim 3 figures for the period 2019-2022 have been restated to correct misstatements in sales data identified through business reviews and digital improvement projects.

^l The percentage change is calculated from the source data instead of the rounded carbon intensity number.

Sustainability continued

6

Aim 6 is to more actively advocate for policies that support net zero, including carbon pricing.

Our advocacy focused on several themes during 2023, including stronger methane emissions standards, and the need for increased climate policy and regulation, as well as policy frameworks that support growth in low carbon hydrogen, renewables and power, bioenergy and decarbonizing transportation.

We have improved the transparency of our advocacy for global climate policy by publishing our high-level climate policy positions and examples of our relevant activities.

We publish examples of our activity in support of aim 6 online at bp.com/advocacyactivities.

7

Aim 7 is to incentivize our global workforce to deliver on our aims and mobilize them to become advocates for net zero.

This will include continuing to allocate a percentage of remuneration linked to emissions reductions for leadership and around 36,400^a employees. Our annual bonus for all eligible employees, including the bp leadership team, has been linked to a sustainability measure since 2019.

The bonus scorecard against which our eligible employees are measured incentivizes them through three themes: safety and sustainability (30% of which sustainability makes up 15%); operational performance (20%); and financial performance (50%). For 2024 our sustainability measure^b is now linked to our operated carbon emissions, which will cover all increases and decreases in those emissions over the year. This measure covers the same Scope 1 and 2 emissions reported under aim 1 (net zero operations).

Our 2022-24 long-term incentive plan scorecard also links performance to progress on Scope 1 and 2 emissions in our aim 1 and, for group leaders^c, two social measures are included – on employee engagement, and on improved ethnic minority representation in our senior-level leader^d and above population.

As with the bonus scorecard, for 2024-26 we have adopted an absolute percentage reduction in operational emissions against our 2019 baseline as the basis for measuring our progress against aim 1 in our long-term scorecard. This means that collectively, 35% of our long-term incentive plan for group leaders is linked to sustainability-related measures.



Directors' remuneration report, page 105 and Share ownership, page 71

8

Aim 8 is to set new expectations for our relationships with trade associations around the globe.

We will make the case for our views on climate change within the associations we belong to, and we will be transparent where we differ. And where we can't reach alignment, we are prepared to leave.

We periodically assess the alignment of key associations with our position on climate. Our priority is to influence within trade associations, but we may publicly dissent or resign our membership if there is material misalignment on high-priority issues.

In 2023 we reviewed the progress of the 10 associations which had been found to be 'partially aligned' in 2022 and we made a case for action in support of our position on climate.



bp.com/tradeassociations

9

Aim 9 is to be recognized as an industry leader for the transparency of our reporting.

On 12 February 2020 we declared our support for the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).

Since 2021 we have reported in line with the FCA Listing Rule LR 9.8.6(8). It requires us to report on a 'comply or explain' basis against the TCFD Recommendations and Recommended Disclosures. We consider our 2023 climate-related financial disclosures to be consistent with all of the TCFD Recommendations and

Recommended Disclosures. For 2023 we also reported in line with the Companies (Strategic Report) Climate-related Financial Disclosure Regulations 2022 (The UK CFD Regulations).

We continued to take steps to promote stakeholders' access to comparable and decision-useful climate-related disclosures.

We have participated in the development of carbon and net zero standards and benchmarks. Whether or not we agree with a particular methodology, we welcome the perspectives they can provide.

We support work to align global reporting standards and want to play our part in the development of high-quality, reliable, comparable standards that enable companies to prepare and disclose information that is material and decision-useful to stakeholders. In 2023 we continued sharing our views with standard setters and others who are working on the development of ESG reporting standards across different jurisdictions, including the US, Europe and UK.



Climate-related TCFD disclosures, page 55

10

Aim 10 is to provide integrated clean energy and mobility solutions.

Our regions, corporates and solutions team is working to help countries, cities and corporations around the world decarbonize.

Our focus is on working with corporates in sectors that have significant emissions and are not straightforward to decarbonize, such as heavy industry and logistics. For example, in Teesside in the UK, remediation work on the former Redcar steelworks has commenced, with plans to locate Net Zero Teesside Power there.



bp.com/rcs

^a This figure reflects the number of employees eligible for a cash bonus in 2023. The number of eligible employees in 2022 was 32,000.

^b This measure was previously linked to SERs[★].

^c Group leaders are our most senior leaders. Their roles include operational, functional and regional leadership.

^d Senior leaders are the leadership tier below group leaders. They typically manage larger teams or are recognized as technical or functional experts.

Streamlined energy and carbon reporting (SECR) information

Further information on our greenhouse gas (GHG) emissions, energy consumption and energy efficiency is set out here and on the following page. It includes disclosures in respect of the SECR requirements. Further breakdown of our GHG and energy data is available in our ESG datasheet at bp.com/ESG

Operational control ^{ab}	Unit	2023	2022	2021
Scope 1 (direct) emissions	MtCO ₂ e	31.1	30.4	33.2
UK and offshore	MtCO ₂ e	1.0	1.0	1.0
Global (excluding UK and offshore)	MtCO ₂ e	30.1	29.4	32.1
Scope 2 (indirect) emissions – location-based	MtCO ₂ e	2.0	2.1	2.4
UK and offshore	MtCO ₂ e	0.02	0.02	0.03
Global (excluding UK and offshore)	MtCO ₂ e	1.9	2.0 ^c	2.4 ^d
Scope 2 (indirect) emissions – market-based	MtCO ₂ e	1.0	1.4 ^f	2.4
UK and offshore	MtCO ₂ e	0.0^e	0.0 ^f	0.0 ^f
Global (excluding UK and offshore)	MtCO ₂ e	1.0	1.4 ^d	2.4
Energy consumption^g	GWh	124,770	121,697	128,805
UK and offshore	GWh	4,688	4,376	4,386
Global (excluding UK and offshore)	GWh	120,082	117,321	124,419
Ratio of Scope 1 (direct) and Scope 2 (indirect) emissions to gross production^h	teCO ₂ e/te	0.16	0.15	0.17
UK and offshore	teCO ₂ e/te	0.13	0.12	0.13
Global (excluding UK and offshore)	teCO ₂ e/te	0.16	0.15	0.17

a Operational control data comprises 100% of emissions from activities operated by bp, going beyond the Ipieca guidelines by including emissions from certain other activities such as contracted drilling activities. Read more at bp.com/basisofreporting.

b Due to rounding some totals may not agree exactly to the sum of their component parts.

c Restated due to IEA emission factor library update.

d Restated due to consistency of rounding.

e 2023 reflects REGOs that had not been retired at the time of publication but are expected to be retired subject to business decisions at the end of the compliance period 31 July 2024.

f Updated to reflect use of renewable energy in UK and offshore in 2022 and 2021.

g Energy content of flared or vented gas is excluded from energy consumption reported as although it reflects loss of energy resources, it does not reflect energy use required for production or manufacturing of products.

h Gross production comprises upstream production, refining throughput and petrochemicals produced.

Streamlined energy and carbon reporting (SECR) information continued

Energy efficiency measures

Since 2016 we have delivered 8.9MtCO₂e of sustainable emissions reductions★ (SERs) across our operated sites.

This is our key metric for tracking annual reductions in GHG emissions from energy efficiency savings and direct GHG emissions.

A total of 172 SERs projects in 2023 contributed to reductions of 0.9MtCO₂e. This is in addition to the 152 SER projects and associated reduction of 1.5MtCO₂e in 2022. Those included reduced fuel consumption in the North Sea, waste heat recovery in the Azerbaijan-Georgia-Türkiye (AGT) region and the automation of gas turbine generators, also known as power export optimization, in Oman. It also included projects across bpx energy sites in the US Permian Basin for example, electrification and removal of existing compressors to reduce fuel use.

Energy efficiency activities in 2023 included:

- The implementation of bottom-up approaches to energy forecasting and management so our employees at sites better understand the energy balance of production assets. This has enabled them to avoid emissions by reducing the amount of additional equipment running for a given throughput of oil and gas.
- The creation of a global energy dashboard for refining within bp Solutions to enable real-time performance management at sites. The tool is currently available for use by the energy sub-discipline network, which includes bp Solutions and site energy engineers.
- **bpx energy:** projects focused on improving energy efficiency, including further electrification in Texas, conversion of continuous chemical treatment to a batch process reducing energy demand, and installation of solar air compressors to reduce reliance on imported electricity. The connection of multiple wells to our Bingo central delivery point reduces wellsite footprint and results in infrastructure emission reductions. The facility also utilizes instrument air instead of natural gas to operate pneumatic devices. In Eagle Ford, the Hawkville North East central facility point is undergoing an expansion to replace natural gas-driven compressors with electric-driven compressors. bpx energy has also been decommissioning legacy central delivery points that use natural gas-driven pneumatics and compressors and reroute them through a new central delivery point, utilizing electric-driven equipment.
- **Refining:** projects delivered across refining included cooling water infrastructure and

hydrocracker improvement projects to reduce emissions and production optimization at Lingen.

- **North Sea:** operations have delivered a series of compressor optimization projects. ETAP has upgraded a gas turbine generator with a new combustion system that maintains power output and reduces fuel demand. Clair Ridge has optimized compressor discharge pressure to reduce compression power demand while still maintaining stable production rates.
- **Gulf of Mexico:** projects included turbine generator controls upgrades to reduce fuel consumption, trialling a reduced spinning reserve (see definition in next paragraph), LED light replacement and water injection pump optimization. Optimization assessments conducted on drilling operations at Mad Dog have reduced the number of diesel generators being used on site. Equipment upgrades are taking place across Thunder Horse with the replacement of older T-Gens units with more energy efficient ones. Alongside this, the pressure of export gas compressors is being lowered, resulting in slightly lower power requirements.

As part of managing energy efficiency, we take a portfolio-wide approach to assessing and prioritizing spinning reserve reduction opportunities. Spinning reserve involves running additional power generation machines to provide an excess of energy supply. This can help to protect production from plant vulnerabilities, including power generation reliability. Reducing spinning reserve can increase exposure to power fluctuations for production. We take a risk-based approach when considering reducing the number of running machines. This allows bp to realize emissions and maintenance cost reductions from fewer running machines, while managing the associated production risk.

In production and operations we held energy and carbon workshops in the North Sea, Tangguh, AGT and the Gulf of Mexico. Each refinery developed draft plans for what it plans to do for energy reduction between now and 2030. These ideas are across maintenance, optimization and projects.

In 2023 we finished developing our real-time digital carbon and energy dashboards for all refineries to monitor energy performance and alert employees when energy use is high. In refining we held workshops at Whiting and Gelsenkirchen to develop new energy reduction ideas. These ideas were then prioritized and developed at Whiting and Gelsenkirchen, and introduced at Cherry Point.

bp is involved in several external groups working on energy efficiency, including the Oil & Gas Climate Initiative (OGCI), the International Association of Oil & Gas Producers (IOGP) and Energy Star. We run an annual training course for new chemical engineers, which includes energy efficiency and we offer GHG emissions and energy efficiency training for more experienced engineers and practitioners.

Reporting methodology

Our approach to reporting GHG emissions broadly follows the Ipieca, API, IOGP Petroleum Industry Guidelines and the GHG Protocol for Reporting GHG Emissions. We calculate GHG emissions based on fuel consumption and fuel properties for major sources, such as flares.

We report CO₂ and methane. We do not include nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride as they are not material to our operations and it is not currently practical to collect this data at scale.

Energy consumption is monitored and reported centrally from all operated sites by fuel type. This includes all energy, both imported and self-produced, used to run our operations and aligned with our GHG reporting boundary, but excludes energy content of flared or vented gas. Although flaring and venting reflects loss of energy resources, it does not reflect energy use required for production or manufacturing of products.

Ratio of Scope 1 and Scope 2 emissions to gross production

bp reports a ratio of Scope 1 and Scope 2 emissions to gross production, see SECR table on [page 51](#). This covers all our Scope 1 and Scope 2 emissions on an operational control boundary basis and uses gross operated sales from our operated oil and gas facilities, refinery throughput and petrochemicals produced. The denominator uses output from production businesses, refineries and petrochemical facilities, which account for 96% of total operated emissions. The intensity ratio has improved due to our aim 1 reductions, as described on [page 48](#).

The ratio provided in the SECR table uses production and throughput from our operated upstream, refining and chemicals businesses as a measure of output which can be consistently reported against. We report data on a consolidated basis in the *Annual Report and Form 20-F* and this differs to the production and throughput used for the ratio in the SECR table, which aligns with the operated emissions reporting boundary.

Improving people's lives

Our aims provide focus and structure for the actions we take to improve people's lives whether they work for bp, for our suppliers, or live in communities close to our operations.

These aims are focused on how we think bp can make the biggest difference in the places where we work. They build on strong social impact and risk management requirements and guidance in our Operating Management System (OMS)★.



For detailed information on our aims 11-15 and performance in 2023, see bp.com/sustainability

11

Our **aim 11** is to develop enough clean energy to benefit more than 36 million people.

What we've achieved

- Brought 0.4GW to FID in 2023, for a total of 6.2GW^a.
- Our renewables projects pipeline at the end of 2023 was 58.3GW (bp net), an increase of 21.1GW from 2022. This included 4GW in offshore wind, 5.3GW in solar and an increase in dedicated hydrogen renewables of 12.4GW.
- Supported projects to enable access to lower carbon, affordable energy in local communities in Indonesia and Angola.

12

Our **aim 12** is to support a just energy transition that advances human rights and education.

What we've achieved

- Engaged with local communities as we developed hydrogen and CCS projects with JV partners in Teesside (UK) and various projects in Western Australia, to help better understand their needs.
- Improved risk assessment tool for security and human rights. Using this tool, we identified security and human rights risks at 30 of 230 operated assets and put in place relevant measures to prevent or mitigate them.

13

Our **aim 13** is helping more than one million people build sustainable livelihoods and resilience.

What we've achieved

- Our analysis confirmed that in 2023, as in 2022, we paid all our employees a fair wage^b (in determining which, we take account of factors such as local market conditions).
- Reviewed the impact and alignment with our aims of our existing social investment portfolio.

14

Our **aim 14** is greater diversity, equity and inclusion for our workforce and customers, and to increase supplier diversity spend to \$650 million for US-related spend^c.

What we've achieved

- Launched a global initiative to encourage our employees to voluntarily disclose their identity data in our HR systems (where legally permissible to do so).
- Delivered Race4Equity training to almost 100% of our senior leaders and committed more than \$4 million to offer scholarships and industry experience at three historically Black US colleges to provide career development support.

15

Our **aim 15** is to enhance the health and wellbeing of our employees, contractors and local communities.

What we've achieved

- Continued to promote our global wellbeing platform Thrive@bp and implemented new platforms for employees in the US and China.
- Launched a number of health and wellbeing campaigns globally for both employees and the communities in which we operate including in India, where *Castrol* is running initiatives for truck drivers.

Human rights

We believe everyone deserves to be treated with fairness, respect and dignity. We strive to conduct our business in a responsible way, respecting the human rights of our employees and everyone we come into contact with.

Our human rights policy and our code of conduct help us do that. Our policy aligns

with the UN Guiding Principles on Business and Human Rights. It is underpinned by the International Bill of Human Rights and the International Labour Organization's Declaration on Fundamental Principles and Rights at Work, including its core conventions. These include the rights of our workforce and those living in communities potentially affected by our activities.

To support our teams, we provide human rights training and other awareness-raising activities. In 2023 this included training on identifying and managing labour rights and modern slavery risks.



bp.com/humanrights

^a The aggregate quantity, net to bp, of renewable generating capacity that has been developed to the point of final investment decision.

^b A wage that meets employees' basic needs. Analysis excluded employees in recently acquired companies.

^c In 2023 we reset our supplier diversity target from \$1 billion to \$650 million annual spend by 2025, see [page 71](#).

Sustainability continued

Caring for our planet

Our sustainability frame includes a focus on making a positive difference to the environment in which we operate.

These aims build on our environmental impact and risk management requirements, and guidance in our OMS.

 For detailed information on our aims 16-20 and performance in 2023, see bp.com/sustainability

16

Our **aim 16** is making a positive impact through our actions to restore, maintain and enhance biodiversity where we work.

What we've achieved

- Funded two new biodiversity restoration projects – Zangilan Forest restoration in Azerbaijan and marine habitat restoration in the River Tees in the UK.
- Identified and implemented biodiversity enhancement activities in and around operations at Cherry Point refinery in the US, and in Azerbaijan-Georgia-Türkiye.

17

Our **aim 17** is becoming water positive by 2035.

What we've achieved

- Continued site-based water assessments to help operational efficiency, at Rotterdam, Cherry Point, Lingen and Whiting refineries.
- Signed up to support three catchment collaboration projects in Azerbaijan in 2023 as part of our aim to work with others to replenish water.

18

Our **aim 18** is championing nature-based solutions and enabling certified natural climate solutions.

What we've achieved

- Worked on finalizing our nature-based solutions (NbS) action plan, which focuses on ways of embedding nature into our engineering designs for new projects and existing operations.
- Continued to build our portfolio of natural carbon solutions voluntary carbon projects.

19

Our **aim 19** is to unlock new sources of value through circularity.

What we've achieved

- Included our circularity framework as guidance in our OMS and highlighted circularity as a focus area for operations to consider when planning new projects.
- Introduced circularity measures across our convenience business. For example, we are now offering reusable cups and bowls across Germany, through a deposit system called Recup and Rebowl.

20

Our **aim 20** is developing a more Sustainable Supply Chain.

What we've achieved

- Published bp procurement's new *Sustainable Purchasing Position* in November 2023.
- Updated 'bp's expectations of its suppliers' to reflect both an update to our code of conduct in 2022 and the new sustainable purchasing position.



bp.com/sustainablepurchasing

At major operating sites, 73% of our total freshwater withdrawals and 36% of freshwater consumption were from regions with high or extremely high water stress in 2023. This is a significant increase from 2022 (0.1% and 0.6% respectively) and is due to an update to World Resource Institute's (WRI) Aqueduct™ 4.0 in 2023 which changed the distribution of water stressed areas. As a result three of our refineries are located in regions that are now considered to have higher water stress.

Air emissions

We monitor our air emissions – including SO_x, NO_x and non-methane hydrocarbons – and, where possible, put measures in place to reduce the potential impact of our operational activities on local communities and the environment. In 2023 our total air emissions remained relatively flat compared with 2022.

bpx energy contributed to these results by reducing its non-methane hydrocarbon emissions by 5% through various interventions including electrification, compressor optimization, base well tie-ins, new well designs and flaring reduction projects.



bp.com/ESGdata

Biodiversity

Our biodiversity position builds on the robust practices already in place to manage biodiversity across bp projects.

We have applied our net positive impact (NPI) biodiversity methodology on new in scope projects, including the Northern Endurance Partnership Development in the UK and the Ubidari Carbon Capture project in Indonesia. We are also building our capability and understanding of the methodology across our project teams to support delivery of our NPI objective. We have provided training, coaching and expert advice to help build the skills required.



bp.com/biodiversity

Our water consumption in 2023

We saw a 29% fall in freshwater withdrawals and a 15% fall in freshwater consumption, compared with our 2020 baseline^a. This was largely due to the divestment of the Toledo refinery, however other changes were attributable to the reconfiguration of Kwinana, turnaround activity at Castellón and use of non-freshwater sources in bpx energy Eagle Ford. This was partially offset by increases in consumption at Cherry Point owing to the introduction of the new hydrocracker and cooling water infrastructure projects, and an increase in drilling and completions activity at our bpx energy La Ha operations.

^a The baseline freshwater consumption is defined as 55.9 million m³ per year.

Climate-related financial disclosures^a

We support the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), which was established by the Financial Stability Board to improve the reporting of climate-related risks and opportunities.

Our aim 9 is to be a recognized industry leader in the transparency of reporting and we want to work constructively, where possible, with the TCFD, and others, to develop good practices and standards for transparency. In 2023 we continued to work with the World Business Council for Sustainable Development (WBCSD) in relation to their ongoing 'Climate Scenario Analysis Reference Approach for Companies in the Energy System'. Read about how we have used the WBCSD Scenario Catalogue^b to inform our own scenario analysis on [page 66](#).

TCFD statement

We report in line with the FCA Listing Rule LR 9.8.6(8)^c, which requires us to report on a 'comply or explain' basis against the TCFD Recommendations and Recommended Disclosures in respect of the financial year ended 31 December 2023^d.

We consider our climate-related financial disclosures to be consistent with all of the TCFD Recommendations and Recommended Disclosures and that they are therefore compliant with Listing Rule 9.8.6(8). We have set out our disclosures against each TCFD Recommended Disclosure and in doing so have covered both the Recommended Disclosure and the related Recommendation^e. We have made disclosures that take into consideration references made to the materiality of information in the Recommendations related to Strategy and Metrics and Targets. In determining materiality for these purposes we considered whether particular information may have the potential to influence the economic decisions of our shareholders. We have also, where appropriate, considered the TCFD guidance and other supporting materials referred to in the Listing Rules^f. In the Strategy (b) section below, we describe elements of our plans for the transition to a lower carbon economy as we execute our strategy.

As explained on [page 14](#), we consider our strategy to be consistent with the goals of the Paris Agreement. The strategy has been developed taking into consideration, among other things, the *bp Energy Outlook 2023* scenarios (described on [page 10](#)), which take account of climate commitments and pledges made by countries in which we operate alongside a range of other factors.

In preparing our disclosures we have made several judgements, and while we are satisfied that they are consistent with the TCFD Recommendations, Recommended Disclosures and reporting requirements under the UK CFD Regulations, we will continue to evaluate our options for future disclosures. We will monitor guidance as it evolves and consider opportunities to enhance our disclosures.

Governance

TCFD Recommendation:

Disclose the organization's governance around climate-related issues and opportunities.

Recommended Disclosure:

- a. Describe the board's oversight of climate-related risks and opportunities.
- b. Describe management's role in assessing and managing climate-related risks and opportunities.

The role of the board is to promote the long-term sustainable success of the company, generating value for our shareholders while having regard to the interests of our other stakeholders and the impact of our operations on the communities where we operate and the environment.

In performing this role, the board sets and monitors bp's strategy. It is responsible for monitoring bp's management and operations and obtaining assurance about the delivery of its strategy.

Any changes to the company's purpose, strategy and values (which we call 'Who we are') are reserved for the board for approval in accordance with the board-approved corporate governance framework.

The board's responsibilities extend to oversight of bp's internal control and risk management framework, including climate-related risks and opportunities. These responsibilities are set out in the terms of reference of the board, available online at bp.com/governance.

The board considers that our strategy allows bp to be flexible to adapt to the evolution of the external environment, including market changes, to remain consistent with the Paris goals, see [page 33](#).

The board and its committees have oversight of climate-related issues^g, which include climate-related risks and opportunities. Board and committee activities in respect of climate-related risks and opportunities are set out within the board activities section and committee reports respectively, which can be found on the pages detailed in the table on [page 56](#).

Climate-related risks and opportunities were discussed at each board meeting covering strategy in 2023, and the committees considered climate-related issues where appropriate to do so in fulfilling their responsibilities. Oral reports from each of the committee chairs are given at board meetings to keep the board apprised of the relevant matters discussed including, where applicable, climate-related risks and opportunities.

The board also reviewed documents containing climate-related disclosures.

^a This section provides disclosures pursuant to the FCA Listing Rule LR 9.8.6(8) and in line with the Companies (Strategic Report) (Climate-related Financial Disclosure) Regulations 2022 (The UK CFD Regulations). In the main, we consider our TCFD disclosures achieve UK CFD compliance. Where additional information has been provided beyond our TCFD disclosures to achieve compliance with the CFD Regulations, this has been specifically called out.

^b Our 2023 analysis used data from the WBCSD Climate Scenario Catalogue version 2.0, published on 31-03-2023 and downloaded on 01-02-2024.

^c https://www.handbook.fca.org.uk/instrument/2020/FCA_2020_75.pdf.

^d In considering the consistency of our disclosures with the TCFD Recommendations and Recommended Disclosures we have had regard to, among other things, the documents referred to in LR 9.8.6B and 6C, as applicable to the financial year 2023.

^e In preparing the disclosures we have referred to the TCFD implementation guidance 'Annex: Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures (October 2021)', available from fsb-tcfd.org/publication.

^f LR 9.8.6B and LR 9.8.6C.

^g We interpret the term 'climate-related issues' to relate primarily to those climate-related risks and opportunities for bp which are relevant to the delivery of long-term shareholder value in the context of the low carbon transition.

Climate-related financial disclosures continued

The board continues to develop its knowledge and expertise on climate-related and sustainability matters. For example, in 2023, the board took part in the following:

Renewables and power transition growth★ engine update	Included recent progress on and plans for offshore wind. Held to assist the board in remaining abreast of key energy transition risks and opportunities.
Hydrogen transition growth engine update	Held to assist the board in remaining abreast of key energy transition risks and opportunities.
Energy and economic update	The briefing was given by our chief economist on developments shaping the key political and societal trends currently affecting the energy transition, following publication of the <i>bp Energy Outlook 2023</i> in January 2023. Given to assist the board in remaining abreast of key developments fundamental to implementation of bp's strategy and net zero ambition and aims.

The board is due to receive further updates on bp's transition growth engines and climate and sustainability in 2024.

Our company secretary's office manages the process by which board and committee agendas are set and works closely with teams in bp to develop materials that assist the board to discharge its responsibilities, including in respect of climate-related issues.

The board believes its members possess the necessary expertise related to climate change and sustainability to support the group's strategy. In particular, six of our non-executive directors have specific climate change and sustainability expertise, as set out here.

This determination is based on an assessment of their background and experience, with focus on their background in the energy sector, experience in executive roles and depth of experience in sustainability and climate change, including climate-related risks and opportunities.

For more general director skills information, see [page 96](#), for director's biographies see [pages 83-85](#) and [bp.com/board](#)

- **Dame Amanda Blanc** is the current serving CEO at Aviva plc and has held several executive roles across the industry. She is co-chair of the UK Transition Taskforce and Principal Member of Glasgow Financial Alliance for Net Zero (GFANZ).
- **Helge Lund** has extensive experience in the energy sector and deep knowledge and global experience including stakeholder considerations regarding climate change risk and opportunities. He has chaired the board through the development of bp's strategy and net zero ambition and continues to have oversight of the delivery of that strategy. He served as a member of the UN Secretary-General's Advisory Group on Sustainable Energy from 2011 to 2014.

- **Hina Nagarajan** has over 30 years' experience in senior roles within the customer-focused FMCG sector, which is invaluable in support of bp's convenience transition growth engine. As CEO of United Spirits Limited (Diageo plc's listed Indian subsidiary), she has overseen the implementation of Diageo India's 10-year ESG action plan, and its Society 2030 mission, in addition to a number of other sustainability initiatives.
- **Johannes Teyssen** brings CEO experience from his time at EoN, where under his leadership, it split its hydrocarbons and non-hydrocarbons businesses – giving him significant experience of considering climate-related risks and opportunities. He has sat on bp's safety and sustainability committee since 2021. He is a director of Alpiq Holding AG, a Swiss energy services provider and electricity producer in Europe.
- **Melody Meyer** has deep-rooted operational experience in the energy sector which equips her to advise on climate-related risks and opportunities. She has chaired bp's safety and sustainability committee since November 2019, which oversees the implementation of bp's sustainability framework and net zero ambition.
- **Satish Pai** has extensive experience in the resource and energies industries. He is managing director of metals company, Hindalco Industries Limited, and leads the company's Sustainability Board in overseeing sustainability initiatives – such as sustainable mining practices, energy conservation and recycling. He has served on the bp safety and sustainability committee since March 2023.

Board and committees' consideration of climate-related issues

For examples from the year ended 31 December 2023, see the text indicated with a **T** on the pages set out below.

The board	pages 90-91
People and governance committee	page 94
Audit committee	page 98
Safety and sustainability committee	page 103
Remuneration committee	page 105

The role of management

The board, subject to certain conditions and limitations, delegates day-to-day management of the business of the company to the CEO. The CEO is responsible for proposing bp's strategy to the board for approval and leading the bp leadership team in delivering bp's strategy and annual plan.

Under this delegation, the CEO is responsible for overseeing the implementation of a comprehensive system of internal controls that are designed to, among other things (a) identify and manage risks that are material to bp, (b) protect bp's assets, and (c) monitor the application of bp's resources in a manner that meets external regulatory standards. Risks, for these purposes, include the climate-related risks and opportunities for bp associated with the issue of climate change and the transition to a lower carbon economy. This is set out in the CEO role profile at bp.com/board.

The assessment and management of climate-related risks and opportunities is embedded across bp at various levels and delegated authority flows down from the board through the CEO. See [page 73](#) for more information on risk governance and oversight.

2023 activity

Where considered appropriate, climate-related risks and opportunities were discussed at bp leadership team meetings in 2023 as part of regular business performance updates produced for these meetings.

The bp leadership team provides oversight of risk, including climate-related risk, through the various committees described on [page 73](#). The leadership team is informed about and monitors emerging risks via the 'emerging risk' paper, produced by our SVP treasury, which focuses primarily on short- to medium-term emerging risk. Members of the leadership team receive information on the longer-term risks and opportunities associated with the energy transition via updates produced by our chief economist. These papers are shared with the board.

SVP level and beyond

The bp leadership team is supported by bp's senior-level leadership and their respective teams, with dedicated business and functional expertise focused on climate-related risks and opportunities or on matters which may be affected by such risks and opportunities. This includes: health, safety, environment and carbon; risk; strategy and sustainability (which includes our carbon ambition, policy and economics teams). Alignment between group, business and functional leaders is fostered through other meetings, for example, the Strategy and Sustainability Management Forum in C&P or the TCFD working group which leads the preparation of bp's TCFD disclosures.

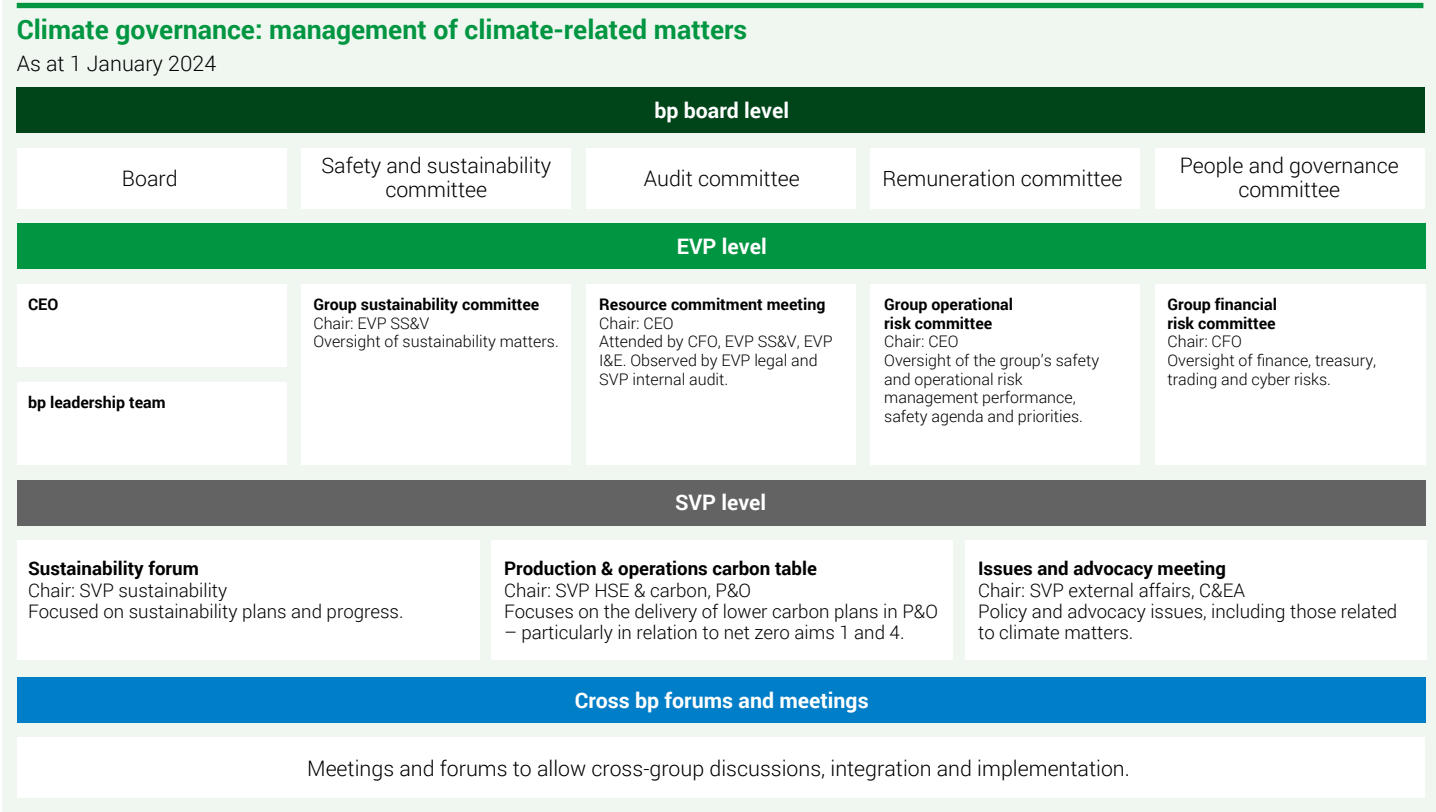
Management consideration of climate-related risks and opportunities is organized as follows:

Resource commitment meeting	Forum for approval of investments related to existing and new lines of business above \$250 million or \$25 million for acquisitions, or which exceed the relevant EVP financial authority, and any project considered strategically important such as a new market entry, see page 31 .
Group sustainability committee	Provides oversight, challenge and support in the implementation of bp's sustainability frame and the management of potentially significant non-operational sustainability (including climate-related) risks and opportunities. It met four times in 2023. During 2023 the committee considered progress embedding sustainability, performance against targets and bp's position on certain strategic sustainability issues that present risks or opportunities to delivery. This committee is chaired by the EVP strategy, sustainability & ventures (SS&V) and comprises members of the bp leadership team. The outputs from the committee are shared with the board and its committees, including the safety and sustainability committee, as appropriate.
Group operational risk committee	Provides oversight of safety and operational risk management performance for the group, where appropriate. Climate-related factors may affect certain sources of safety and operational risk, such as severe weather events.
Group financial risk committee	Monitors the effectiveness of bp's financial reporting, systems of internal control and financial risk management, namely material group financial risks. In 2023, in relation to climate-related risks and opportunities, it considered the proposed TCFD strategy disclosures and planned approach to assurance and verification of non-financial reporting (including climate-related reporting) ahead of discussion with the audit committee.

Acquired businesses

Integration plans are developed to transition acquired businesses into bp's system of internal control, over an appropriate timeframe.

Climate-related financial disclosures continued



Risk Management

TCFD Recommendation:

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

Recommended Disclosure:

a. Describe the organization's processes for identifying and assessing climate-related risks.

bp's risk management system and policy, described on [page 73](#), are designed to address all types of risks including our principal risks and uncertainties described on [page 74](#).

As part of this system, our businesses, integrators and enablers are responsible for identifying, assessing, managing and monitoring risks associated with their business or functional area.

The process for identifying risks is outlined on [page 74](#) and guidance to support consistency has been made available to our businesses, integrators and enablers to provide them with a climate-related framework and taxonomy, which they are able to use as they see fit in their identification and assessment of risk.

Where risks – including climate-related risks – are identified, businesses, integrators and enablers are required to assess them, in line with our risk management policy. This includes an impact and likelihood assessment which supports the consideration of relative significance and prioritization of risk management activities.

The impact criteria outlined on [page 74](#) include health and safety, environmental, financial and non-financial (such as regulatory impact) criteria and are used for assessing risks, including climate-related risks. This provides a consistent basis for assessment across bp.

For the purposes of our TCFD disclosures, we continue to make use of the TCFD's distinction between 'physical' and 'transition' climate-related risks.

Identification, assessment and management of climate-related opportunities^a

As set out in our TCFD Strategy A and B disclosures on [page 60](#), we have identified potentially material climate-related opportunities and our strategy to transition to an integrated energy company has been informed by these. We identify climate-related opportunities by considering a range of information sources, including the *bp Energy Outlook* (see [page 10](#)), which helps to inform our core beliefs about the energy transition. Business opportunities are originated across bp, and taken forward through bp's investment governance framework, see [page 31](#).

Our gas & low carbon energy business is accountable for the delivery of many of our low carbon opportunities through both organic and inorganic growth (see [page 74](#)). Our investment governance framework (see [page 31](#)) provides the mechanism by which alignment of these opportunities with our strategy is assessed and decisions on which to progress are made.

Recommended Disclosure:

- b. Describe the organization's processes for managing climate-related risks.**
- c. Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organization's overall Risk Management.**

Risk Management process

Risks which may be identified include potential effects on operations at asset level, performance at business level and developments at regional level from extreme weather or the transition to a lower carbon economy.

As part of our annual process the bp leadership team and board review the group's principal risks and uncertainties. Climate change and the transition to a lower carbon economy continues to be identified as a principal risk, see [page 75](#). It covers various aspects of how risks associated with the energy transition could manifest. Physical risks such as extreme weather, which may be affected or intensified by climate change, are covered in our principal risks related to safety and operations.

Physical risk

Physical risks are typically identified at the asset or project level and are managed depending on the level of risk assessed.

In the North Sea and Gulf of Mexico, regions more prone to severe weather conditions, our offshore facilities monitor meteorological and oceanographic conditions through the collection of measurements. This data is collated and periodically compared against the 'Basis of Design' for the facility. If significant differences are observed, then this may trigger an update to the 'Basis of Design', prompting action to reassess risks such as structural integrity and station-keeping and if necessary, implement additional risk mitigations, for example updating procedures for shutting down and removing personnel from facilities ahead of severe weather events. Updates may also be made as a result of other new knowledge, analysis methods and data, including climate projections where appropriate.

Our major projects are required to assess the potential impact of severe weather and projected climate-related physical impacts. Where relevant, potential changes in environmental conditions, such as sea level rise and ambient temperatures, over the expected lifetime of a project are to be considered as part of the design process.

Building on a modelling exercise conducted in 2022, in 2023 we implemented a screening approach to support identification of potential severe weather and physical climate-related hazards at operational sites. Screening was conducted for a number of onshore sites and, where potential hazards have been identified, and as appropriate, this enables further work to be carried out to assess potential risks and implement appropriate management measures.

For other assets, such as our retail sites★, that are typically not exposed to a comparable level of severe weather risk, climate-related risks such as flooding or wind damage may be managed where appropriate through the emergency response plans and business continuity plans which are mandated through company-wide policies.

Additionally, at a group level we recognize risk associated with the potential for increased water scarcity due to climate change and other factors and the impact this could have on our operations and in the catchments where we operate. In order to understand the water-related challenges that we face, we review our water impacts, risks and opportunities at our major operating sites. These reviews consider the quantity and quality of water used as well as any regulatory requirements. Over time, we anticipate site-level activities in support of our aim 17 contributing to our management of water-related risks and opportunities. Under aim 17, we aim to replenish more fresh water than we consume in our operations by being more efficient in operational freshwater use and effluent management. And, by collaborating with others to replenish fresh water in stressed and scarce catchment areas where we operate.

Transition risk

The board appraises bp's strategy and monitors bp's management and operations to obtain assurance over the delivery of its strategy. This approach enables the effective management of climate-related transition risks and opportunities facing bp associated with the energy transition. For the purposes of our TCFD disclosures, we have grouped transition risks identified by our businesses, integrators and enablers, into the three broad material climate-related transition risks to bp, see [page 61](#). However, we continue to assess and manage the component parts of those broad transition risks, including:

Policy and legal risks

Our policy and partnerships team monitors and develops policy positions in line with bp's sustainability aims. This team works with our regional organization as well as corporate entities to discuss regional

and global policy trends and support external positioning and interactions relating to policy and advocacy topics.

Our group sustainability committee provides oversight of sustainability matters and our issues and advocacy meeting covers emerging advocacy issues.

Our legal team manages bp's litigation, including climate-related litigation and advises on the management of associated risks. This includes the use of internal lawyers and, where appropriate, external counsel.

Market risks

In developing our business strategies, we consider market risks, controls and mitigations, including future demand in the different geographies in which we might operate, the competitive landscape and the potential value proposition. We manage these risks through our investment decisions, our hedging and optimization activity, and through key business processes, including the group investment assurance and approval process.

Reputational risks

Our investor relations and communications & external affairs (C&EA) teams work to mitigate reputation-related risks, which include the risk of shareholder action. Our investor relations team co-ordinates engagement with key investors on both a bilateral basis and through investor initiatives to support understanding of bp's strategy and gain insights to inform feedback they provide to the group.

Our C&EA team manages corporate reputation through identification and monitoring of key issues and both proactive and reactive engagement with relevant stakeholder groups to communicate bp's positions. Under our aim 6, which is to actively advocate for policies that promote net zero, the team also leads advocacy campaigns for policies that support net zero, see [page 50](#).

Technology risks

Our technology team works to both mitigate risks and identify opportunities associated with evolving and emerging technologies that play a role in the changing global energy system. The team generates technology assessments and disruptive technology reports for review by bp senior executives and the recommendations are overseen by the bp leadership team, through the Innovation Advisory Council. In appropriate cases this helps to underpin and appraise the business case for new investments, new partnerships, new customer offers or new business models where these are being driven by technology innovation.

Climate-related financial disclosures continued

Strategy

TCFD Recommendation:

Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's business, strategy and financial planning where such information is material.

Recommended Disclosure:

a. Describe the climate-related risk and opportunities that the organization has identified over the short, medium, and long term.

In setting and monitoring delivery of bp's strategy, the board and leadership team consider climate-related risks and opportunities across the:

- **Short term** (to 2025): aligning with our near-term business and financial planning timeframe.
- **Medium term** (to 2030): aligning with our group business outlook timeframe, and enabling us to think beyond our short-term targets and adjust course if appropriate.
- **Long term** (to 2050): using scenarios to help explore the wide range of uncertainties surrounding the energy transition over the next 30 years. For more detail on our approach, see [page 11](#).

TCFD categorizes climate-related transition risk and opportunity as follows: policy and legal, market, reputation and technology. It also refers to climate-related acute and chronic physical risks and opportunities. Risks in each of these categories have been identified using a risk management process that our businesses, integrators and enablers are required to follow. For more about how the relative significance of identified risks is evaluated, see Risk Management on [page 58](#).

Climate-related transition risks and opportunities

At a group level, we have identified three broad, material climate-related transition risks, underpinned by underlying risks that are assessed and managed through the risk process outlined overleaf on [page 61](#). These transition risks may cut across our short-, medium- and long-term time horizons; however, we indicate below wherever there is a particular time horizon in which the risk has been considered. The transition risks are also global in nature, so we do not discuss specific geographies here, but the underlying risks refer to specific geographies

where appropriate^a. We also see significant potential for upside – or opportunity – associated with some of these risks. These are discussed under each risk on [page 61](#) and in relation to Recommended Disclosure (b) we also describe the potential impacts of both the risks and opportunities to bp.

Climate-related physical risks

The physical risks we have identified primarily relate to severe weather and often represent potential for increased drivers for safety and operational risks to our operations, particularly process safety, personal safety, and environmental risks, see Risk factors [page 77](#). In addition, we have identified the potential for changes in the availability of freshwater, including as a result of climate change, as a risk to some of our operations. Higher instances of extreme weather also have the potential to impact supply chains and critical infrastructure, such as air and sea ports, as well as our customers.

We recognize that we could also face other forms of physical climate-related risk over the longer term, for example associated with changes in sea level rise, extreme temperatures and flooding, which could impact our operations. As these risks are primarily operational, and location-specific, they are not grouped in the same way as transition risks.

Offshore facilities

In the case of our offshore facilities, climate change could create greater uncertainty around frequency and/or intensity of severe weather events, such as extreme waves, loop currents, and storms, particularly in the medium to long term. These factors could affect the future risk profile of an asset over its lifetime, and could also impact production or costs.

Water resources

Water resources are increasingly under pressure from various factors, including climate change, and this poses a potential risk to some of our operations that depend on the availability of freshwater. Based on analysis using the World Resources Institute (WRI) Aqueduct Global Water Risk Atlas, eight of our 17 major operating sites in 2023 were located in regions with medium to extremely high water stress. We have identified the potential for this risk to increase in the medium term. For more on water consumption, see [page 54](#).

In common with other businesses around the world, in the longer term we could face adverse market or value chain conditions associated with large-scale cumulative impacts of physical climate change if global mitigation and adaptation efforts are insufficient or unsuccessful. We support the goals of the Paris Agreement and believe that the best mitigation against these types of physical risk is to seek to contribute along with others to the success of global climate mitigation efforts. Our strategy seeks to position us to make such a positive contribution.

We do not currently foresee any material opportunities arising from changes in the physical environment as a result of climate change. However, the actions we are taking to make our operations more resilient, for example through improving efficiency of our freshwater use, may also bring about benefits such as reduced costs.

Recommended Disclosure:

b. Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.

bp's plans for the energy transition

We describe below how we believe our strategy and net zero ambition are both good for business and support society's drive towards the Paris goals.

In this section we talk about some of our plans for the transition and where we do so we have identified these with [TP](#).^b

Throughout the strategic report we set out bp's strategy and plans for the energy transition. This includes our progress against our strategic pillars and transition growth engines, see [pages 18-23](#).

Our progress against our net zero aims and the actions we are taking to help the world get to net zero are described on [pages 48-50](#).

[TP](#) Our strategy is to transition to be an integrated energy company, focused on delivering solutions for customers. This strategy, together with our net zero ambition and aims (see [page 48](#)), has been informed by various inputs, including the climate-related risks and opportunities associated with the energy transition described above; the same is true of our financial and business processes. We describe how we use scenarios to inform our strategy on [page 11](#).

a Underlying risks are specific, for example, local or business-specific risks identified by specific bp entities through the risk processes described above under Risk Management.

b This is not intended to be an exhaustive list of our plans for the transition, but rather illustrative of some of the core elements of our plans.

Climate-related transition risks and opportunities

#1 The value of our hydrocarbon business could be impacted by climate change and the energy transition.

Changes in policy, legislation, consumer preferences or markets as a result of growing concerns about climate change and the energy transition could reduce demand for fossil fuels or lower their price relative to our financial planning assumptions, particularly in the medium to long term, negatively impacting returns from or the value of our hydrocarbon businesses. Changes in regulations, including carbon pricing and fossil fuel policies, could also impact compliance and operating costs in our oil and natural gas production and refining businesses.

Alternatively, demand and/or prices for oil and natural gas and refined products during the next decade could be higher than our financial planning assumptions under certain transition pathways, including those aligned with the Paris agreement. This could strengthen returns from our hydrocarbon businesses (including securing higher proceeds from assets we choose to divest) which may enable us to deliver enhanced shareholder value, further strengthen our balance sheet and grow investment in the transition, in line with our financial frame.

#2 Our ability to grow or deliver expected returns from our transition growth engines could be impacted by the energy transition.

Several factors could restrict the growth of our transition engines or returns from them. These factors include: lack of, or insufficient development and application of, policies, regulations and frameworks that support low carbon businesses; insufficient consumer demand for our low carbon offering; strong competition in the market; or the insufficiently rapid development of supporting technologies and infrastructure or constraints on supply chains for low carbon energies. This could particularly impact bp in the short to medium term as we seek to grow our low carbon businesses but could also represent a longer-term risk.

Alternatively, demand, policy support or enabling technology and supply chain growth for renewables could support a more rapid portfolio shift with expansion of our low carbon businesses and higher returns from them.

Some low carbon businesses, including renewable power, bioenergy and emerging technologies such as hydrogen and carbon capture and storage (CCS), rely on policy support to promote growth. Our aim 6 is to advocate more actively for policies that support net zero, including carbon pricing (see [page 50](#)).

Changes in customer preferences, pace of technology and infrastructure development and costs could impact the markets for low carbon products and services. For example, the pace of adoption of electric vehicles (EV) could impact utilization rates, and consequently returns, from our EV charging networks.

We recognize that the pace of our transition relative to our core low carbon target sectors and regions is important. If we move more slowly than those markets, we may miss investment opportunities and customers may prefer different suppliers with potential negative consequences to demand for our products and to our reputation. If we move faster than these markets, we risk investing in technologies or low carbon products that are unsuccessful because there is insufficient demand for them. However, our investment may also help to stimulate demand and provide us with a leading position in growth markets.

#3 Our ability to implement our strategy could be impacted by changing stakeholder attitudes towards the energy sector, climate change and the energy transition.

Negative perceptions of the energy sector, or bp, could have a number of consequences, for example: adverse litigation; reputational impacts, including our ability to attract and retain talent; and shareholder action. These consequences could affect us in the short, medium or long term.

Alternatively, increased support from our stakeholders could enable access to additional capital and new investors, strengthening our ability to deliver our strategy and enabling faster growth of our low carbon businesses. The *bp Energy Outlook 2023* (see [page 10](#)) suggests that the increased attention on energy security is likely to accelerate the energy transition. Together with the strategic progress we are making, this gives us growing confidence in the opportunities of the energy transition.

Perceived inconsistencies between the pace of bp's transition and societal expectations could have reputational and commercial impacts that might impair our ability to deliver our strategy. However, we also see potential to positively differentiate bp, by delivering against our strategy, ambition and aims.

Our ambition is to be a net zero company by 2050 or sooner, and to help the world get to net zero.

Resilient hydrocarbons: recognizing the uncertainty that the energy transition presents to our hydrocarbons★ business, our focus for that area of our business remains on high-grading our portfolio while maximizing returns and cash flow and working to reduce operational emissions.

This focus is underpinned by a resource base that allows us to choose the best investments and the optionality to allocate capital through the transition; we also plan to divest around

200,000 barrels of oil equivalent per day of lower margin assets by 2030. We have made strong progress on improving operational reliability and commerciality across our portfolio over the past few years, which we expect to help enhance the resilience of those assets through the transition.

We expect our 2030 production to be around 2mmboe/d after divestments.

To enable resilience to lower oil and gas prices which could result from the transition, as well as to deliver value, we intend to maintain the disciplined application of our balanced investment criteria, which include the consideration of hurdle rates of 15-20% from

a balanced portfolio across oil and gas. We also intend to drive capital productivity through strong execution capability and sustain cost efficiency and reliability improvements. See more about our investment process on [page 30](#).

We are aiming for the Scope 1 and 2 emissions from our operations – the majority of which are associated with the operating assets in our hydrocarbons portfolio (refining and upstream oil and gas combined) – to be 50% lower in 2030 than in 2019, and the Scope 3 emissions associated with our upstream oil and gas production to be 20-30% lower in 2030 than in 2019, see [page 48](#).

Climate-related financial disclosures continued

We see cash flow from our oil and gas businesses as helping to fund our investment into transition growth engines, while delivering shareholder value and helping maintain a strong balance sheet.

The climate-related transition risks we have identified may also impact demand for certain refined products in the future, potentially leading to lower refinery margins and requiring less efficient refineries to be retired. Consequently, we are continuing to drive greater competitiveness and value from our refineries, targeting around 96% Solomon refining availability★ by 2025 and to maintain Solomon first quartile net cash margins.

Our refineries are also a foundation for both our bioenergy and hydrogen transition growth engines. In biofuels, we plan to grow production to around 100,000 barrels per day by 2030 (of which ~20,000 barrels would be from co-processing at our refineries). In hydrogen, our existing refining demand is intended to be an anchor to build scale. As a result, we expect throughput to be sustained around current levels while the average carbon intensity of our refined products declines.

Taking account of some of the climate-related transition opportunities we have identified, we also aim to increase biogas supply volumes★, leveraging our position as the largest US biogas supplier to the road transportation sector and expanding our presence in Europe and internationally.

TP Convenience and mobility: given the opportunities in low carbon mobility that the energy transition offers, we are growing our EV charging network and seek to be a partner of choice for our customers as they navigate the energy transition. We are also expanding our *Castrol* business into the EV and industrial coolant sectors, and aiming to be a sector leader in sustainable aviation fuel (SAF) as the aviation industry transitions.

We recognize the risk of a decline in demand for conventional vehicle fuels and products due to the energy transition and we are working to increase the efficiency and resiliency of our existing fuels and lubricants businesses through operating cost reductions and margin optimization.

Our convenience (non-fuels) business is a sizeable and growing part of our mobility ecosystem underpinned by global growth in the convenience and food on-the-go sector.

Forecourt convenience is expected to grow in general, even in markets where we see faster fuels declines, helping us to retain and redevelop our retail sites through the energy transition as we deploy new energy sources.

Our acquisition of TravelCenters of America in 2023 enables us to respond to demand growth signals and further expand our low carbon fuels offer and our non-fuel offer in the US. We will increase the resilience of our existing fuels network by growing our presence on major transit routes and with fleet customers.

Our integrated business model across biofuels, hydrogen, liquefied natural gas (LNG) and electricity also helps to provide security of supply and to safeguard margins in a potentially supply-constrained faster transition or during periods of high market volatility. However, the speed of the energy transition may impact the pace at which the EV, SAF, biofuels, hydrogen and LNG sectors develop, which could impact revenue from these opportunities.

TP Low carbon energy: we recognize the opportunity to scale up our low carbon energy businesses over the next decade underpinned by growing demand and regulatory support.

In hydrogen, our ambition remains to become a global leader. We aim to leverage bp's existing refinery demand and growing biofuels ambitions to build regional supply positions, providing low carbon hydrogen and hydrogen derivative solutions to our customers in line with the development of the hydrogen sector. We aim to selectively pursue opportunities to grow our low carbon hydrogen production where there is regulatory support and CCS access (blue hydrogen★) or significant sustained cost benefit (green hydrogen★).

To mitigate uncertainties in the future pace of transition, our hydrogen opportunities are preferentially focused on advantaged locations, while our global hopper offers ongoing investment flexibility.

In renewable power, we are focusing our investments in opportunities where we can create integration value and enhanced returns, participating in service of green hydrogen, and e-fuels, EV charging and power trading (including flexible generation). We are building a global position in offshore wind, enabled by our capability in large-scale, complex offshore projects, and continue to progress a solar development and sell model with Lightsource bp. Within this, we aim to deliver, and largely operate, around 10GW net installed capacity in offshore wind, solar and onshore wind by 2030.

As the energy transition drives increasing electrification of the global energy system, our power trading business, which trades renewable and non-renewable electricity, allows us to optimize across the power value chain, from generation, including renewables and flexible generation, across grid markets, to customers. This becomes a differentiating factor in unlocking the full potential value of renewables for bp and helps position us for further electrification of the energy system as well as for further decarbonization of electricity. It may also increasingly help optimize across other value chains like green hydrogen and advanced mobility, that may be dependent on power as an anchor commodity.

We retain the ability to flex capital between our transition growth engines to optimize returns, recognizing the potential for the transition to occur faster or slower than anticipated and on different pathways. To help maintain resilience to the possibility of a slower transition, we also continue to consider whether the necessary regulatory support is in place and seek to secure a customer-backed route to market for a reasonable share of energy produced by our renewable power and hydrogen projects prior to final investment.

Impact on technology

We are investing in digital and technology solutions that can help to generate value for bp, manage risk and help accelerate the transition through focused scale-up and innovation. Over time, we expect our research and development spend to be increasingly focused on technologies with the potential to reduce carbon emissions and enable our new low carbon businesses. See [page 46](#) for examples of technology investments in 2023.

We recognize the potential for disruptive technologies to impact our strategy. Alongside our research and development investments, our bp ventures portfolio also includes investments in emerging technologies and business models that may help enable the transition to a low carbon economy.

Physical risk

The potential impacts of the types of physical risks we have identified could include reduced production, throughput or sales – for example as a result of damage to facilities or supply chain disruption – or in a most extreme case loss of life or an asset. Due to uncertainties associated with the impact of climate change on severe weather events in the future, it is difficult to quantify the potential impacts associated with any increase in these risks as a result of climate change.

Having considered both geographic factors and the ability of climate models to adequately represent future trends in physical climate parameters, we seek to take the uncertainties concerning climate-related physical risk into account in our approach to design and operating criteria for existing assets and new major projects★. Where appropriate, we have updated our metocean design criteria to include consideration of both forward-looking and historic models, including climate and synthetic models, in an attempt to mitigate both models and extrapolation uncertainty. The particular models chosen will depend in part on geographic location. See Risk Management, [page 58](#), for how we manage these uncertainties.

As a step in seeking to improve the resilience of our operations to the physical changes that might result from climate change that we have described above, we have undertaken screening of present-day and future potential physical risk exposure for selected key assets and identified those sites with potential for heightened exposure to physical risks in order to prioritize these for further site-based assessment.

As part of this prioritized approach, in 2023 we completed a detailed site-based study at our Castellón refinery in Spain, which found that the weather hazard contributing the most to risks at site is intense summer storms. Taking account of the results of the study, the Castellón integrity management team are assessing new risk barriers to support mitigation of potential risks.

Recognizing the potential impact of climate change on water resources, as part of our aim 17 to become water positive by 2035, we are taking steps to be more efficient in operational freshwater use and effluent management (see [page 54](#)).

Impacts on our financial planning

Capital allocation: We plan to invest sufficient capital to execute our strategy, enabling us to mitigate the risks and capture the opportunities we have identified. As part of our annual planning processes, we assess the distribution of capital across our business areas, including consideration of market evolution. In February 2024 we announced that we expect capital expenditure to be around \$16 billion in 2024 and 2025; and in a range of \$14-18 billion through to 2030. We expect the proportion of that investment directed annually towards our five transition growth engines to have grown by 2030 compared to 2024. To help maintain resilience to the pace of transition and access opportunities, we will continue to flex capital as policies, technologies and markets evolve.

Access to capital: While there is potential for concerns about the energy transition to impact banks' or debt investors' appetite to finance hydrocarbon activity, we do not anticipate any material change to funding in the short to medium term, and our financial frame includes working to maintain a strong investment grade credit rating, targeting further progress on credit metrics within the 'A' range. In 2022 we reduced our net debt by over \$9 billion and by a further \$0.5 billion in 2023. Since the end of 2019 we have repurchased around \$24 billion of short-dated existing bonds and issued over \$12 billion of new bonds with a duration of 20 years or longer, more than doubling the duration of our debt book to over 10 years. Additionally, we have continued to have good access to the commercial paper markets. Subject to maintaining a strong investment grade credit rating, we intend to allocate around 20% of surplus cash flow★ in 2024 to further strengthen the balance sheet. We provide more detail on financial risk factors, including liquidity risk in Financial statements – Note 29.

Investment criteria: Investments are evaluated against a balanced set of investment criteria; the economic criteria utilize a set of price assumptions that reflect our view of market evolution (for our key investment appraisal price assumptions see [page 30](#)). In addition, the investment economics for all investment cases where annual greenhouse gas (GHG) emissions from operations are anticipated to exceed specific thresholds include a carbon price for those emissions, that rises to \$100/teCO₂e (2021 \$ real) in 2030.

When taking investment decisions we continue to consider six balanced investment criteria – including sustainability (see [page 32](#)).

Impacts on financial performance and position

Assessing the impact of climate change and the energy transition requires the use of a number of judgements and estimates. We have set out the significant accounting policies, judgements and estimates used in assessing the impact of climate change in Financial statements – Note 1.

This includes information on pricing, useful economic lives, timing of implementation of policies or decommissioning provisions, and assumptions related to how each might change over time and how such assumptions may impact our currently reported assets and liabilities.

Our price assumptions, including those set out on [page 30](#), reflect a range of future possible scenarios and take account of the potential impact of climate-related risks and opportunities as well as current economic and geopolitical factors. Consequently, impairment losses and impairment reversals consider inputs that arise from climate change and the energy transition. It is not possible to quantify separately the impact of these different inputs on our impairments. However, in conducting our impairment sensitivity tests, that in part reflect transition downside risk, we consider prices within the range covered by the 1.5°C scenario family within the WBCSD data sets used for TCFD resilience testing below.

Financial statements – Note 1 provides information on impairment assumptions and sensitivities. Note 4 provides information on gains and losses on disposal or closure of business and operations, and impairments and impairment reversals, and Note 8 provides information on impairment losses relating to exploration for and evaluation of oil and natural gas resources. See Financial statements – Note 1, Note 4 and Note 8 for more information.

Recommended Disclosure:

c. Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.

Our strategy is designed to be resilient to a range of climate-related scenarios, including those consistent with well-below 2°C and 1.5°C outcomes, see [pages 14-15](#).

As in 2022, to help test our view of this, we have assessed the resilience of our strategy to different climate-related scenarios, including 1.5°C consistent scenarios. We did this in three steps:

1. First, we evaluated all business areas in our portfolio by i) quantitatively assessing their financial significance, in the context of bp's total financial frame, to understand the potential scale of financial/strategic impact that could be put at risk if exposed to transition uncertainty, including 1.5°C; and ii) considered whether there is a key variable – such as price, margin or demand – which would represent a principal transition driver of such risk.

Climate-related financial disclosures continued

2. Second, we quantitatively assessed the impact, to each business area, of potential transition exposure scenarios in 2030 – the point in our planning horizon at which there is widest transition uncertainty.
 - For each of those business areas with both sufficient scale and for which a specific transition risk driver was identified – which collectively represent over 80% of our 2030 adjusted EBITDA★ outlook – we performed a scenario analysis focused on that transition risk driver, across a range of transition pathways^a, including 1.5°C, as set out below and in our methodology summary on [page 66](#).
 - For each of the remaining business areas we performed a simplified quantitative scenario analysis, by testing the financial impact of a scenario in which each business area's expected 2030 adjusted EBITDA is assumed to be reduced to zero – an outcome at least as detrimental to that business area's adjusted EBITDA as could reasonably be expected to result from business-as-usual (BAU), well-below-2°C and 1.5°C transition pathways^c.

In this way, all business areas were quantitatively tested at, or beyond, a range of transition scenarios.

3. Finally, on the basis of the results of steps 1 and 2, we identified those business areas for which the possible consequences of the downside scenario(s) were sufficiently significant to potentially jeopardize group strategic resilience – the only business areas for which this was found to be the case were oil and gas production with respect to their exposure to oil price. For these business areas we assessed the potential implications for bp's strategic resilience (as defined below) over the full period from 2025 to 2030.

To undertake steps 2 and 3, we identified financial criteria which can be modelled as proxies for strategic resilience – choosing to do this through three lenses: our ability to continue to (i) deliver a resilient dividend to shareholders, (ii) maintain a strong investment grade credit rating, and (iii) make disciplined investment allocations within our capital frame. These are consistent with our assessment in 2022.

This is not intended to represent a 'definition' of resilience beyond the purposes of this exercise, and a core assumption of this analysis is necessarily that, aside from any implications of the scenarios being tested, including potential controllable mitigations such as capital or cost management that we might naturally expect to take in response, bp will deliver the assumed underlying strategic and financial priorities out to 2030.

Our approach, described in more detail in box 'Our approach to testing resilience to transition risk' on [page 66](#), is directly applicable to transition risks #1 and #2 – as well as their associated opportunities – as these lend themselves to a financially quantified scenario-based analysis. The approach does not directly address transition risk #3 – however, we believe that some of the potential drivers for transition risk #3, namely policy and societal trends, may be implicit in these scenarios, and we believe that the successful execution of our strategy will, over time, help to mitigate this risk to bp as well as positioning us to take advantage of the potential associated opportunities. This scenario analysis exercise also does not directly address climate-related physical risk, our strategic resilience to which is further discussed below.

Key insights from our scenario analysis and resilience test

While the results of any such analysis must be treated with caution – each is necessarily dependent on numerous assumptions and methodological choices, and each has its own limitations – overall, this analysis and resilience test reinforced our confidence in the continued resilience of our strategy to a wide range of transition scenarios, including those consistent with limiting temperature rise to 1.5°C, and in particular, as our greatest transition exposure, to oil price scenarios, tested to 2030. In undertaking this analysis we observed:

- There is considerable uncertainty across, and often within, each WBCSD Scenario Catalogue family in the pace and nature of the transition to 2030 – and therefore considerable range of financial impact across some of the variables selected for the analysis, reflecting the complexity and interdependencies of the energy transition (see table on [page 67](#)). Generally, we observed that the faster the pace of transition, the greater the uncertainty in the exact shape of the resulting energy system in 2030.

- Oil price is likely to remain the main source of climate-related transition uncertainty for our strategy through to 2030, reflecting both the wide range of potential pathways and the contribution to our expected total adjusted EBITDA over this period, that oil-price-linked businesses represent^b. In the 1.5°C family, the potential downside suggested by the lowest oil prices is around 27% of group adjusted EBITDA in 2030. However, in a number of the scenarios based on the WBCSD Scenario Catalogue ranges, including those consistent with well-below 2°C and BAU families, oil price could offer a financial upside relative to our reference 2030 group business outlook.
- Even with the most extreme low oil price environment in any of the scenarios, sustained over the period from 2025-30^c and taking into account our ability to optimize our capital within the frames set out in our strategy (last communicated at the 10-11 October 2023 investor update), in our analysis we are able to deliver across the three lenses we use to consider strategic resilience, described above.
- The maximum potential scale of downside impact on our 2030 expected group adjusted EBITDA (across the 1.5°C, well-below 2°C and BAU scenarios) from our other natural gas businesses was <6%, while from each of our conventional refining, fuels and low carbon activities★ was modelled to be <4%.
- Our diversified portfolio helps mitigate the implications for our strategic resilience of the exposure of any of one of the individual business areas to the identified risk. It is reasonable to consider each potential outcome in isolation since the outcomes for different business areas vary across scenarios (see table on [page 67](#)).
- In a BAU scenario, we believe our transitioning strategy mitigates the risk of what we and others have referred to as a 'delayed and disorderly' transition, which might follow in the medium to long term. Should the growth of any one of our in-scope transition growth engine areas be challenged by the downside range in the relevant variable, our analysis suggests that the impact of this on group adjusted EBITDA in 2030 would not be sufficient to impact the resilience of our strategy, as described above, in that timeframe.

^a Although such scenarios do not and cannot represent all possible futures, we value them as a simplified and schematic way to consider the potential implications of, and uncertainty inherent within, a range of possible energy transition pathways to a future bp portfolio mix.

^b Note that for the purposes of our scenario analysis and resilience test, we have assessed the impact of oil price across both our oil production businesses and those natural gas businesses for which commercial outcomes are linked to oil price.

^c Our multi-year (2023-30) oil price resilience test considered sustained low oil prices consistent with the most extreme WBCSD Scenario Catalogue 2025 and 2030 scenarios – for 2025 the IEA (World Energy Model Net Zero Energy 2050) price at \$52/bbl, and for 2030 the UN PRI (Inevitable Policy Response Required Policy Scenario) at \$31.8/bbl (both 2021 \$ real, and then inflated in line with bp's other planning assumptions).

It is important to note that insights from this analysis are necessarily limited by the scenarios, methodologies and business assumptions used. The analysis should not be taken as a prediction of the future.

Maintaining strategic resilience to the transition

Taking into consideration potential constraints associated with factors such as long-term capital investment, contractual commitments and organizational capabilities at any given time, bp's ability to maintain strategic resilience rests, in part, on the governance used to keep the strategy under review in light of new information and changing circumstances. To enable us to understand and respond to the changing pace of the energy transition, we monitor and assess key indicators and metrics, such as policy development, renewables installed capacity, EV sales and low carbon technology costs. Our strategy and capital allocation, the associated risks, opportunities and their implications for our resilience are all reviewed by the bp leadership team and the board and updated as they consider appropriate.

Resilience to physical risk

As described on [page 62](#), we have identified a number of physical risks which may affect our business and assets, the frequency or severity of which could be affected by climate change. Exposure to physical climate-related risk is highly dependent on geographical location and on factors such as asset design, and we seek to manage these risks accordingly. We consider that our approach to managing these risks, described in Risk Management Recommended Disclosure b) on [page 59](#), supports our strategic resilience to them.

For the purposes of this Recommended Disclosure, we have considered the potential for physical risks to bp-operated assets to increase as a result of climate change (namely, increases in the potential frequency or intensity of extreme weather events) to such an extent as to have the potential to impact the resilience of our strategy.

During 2022, we undertook an analysis of potential changes in certain physical conditions, such as air temperature, precipitation, sea level rise and wave heights, for our onshore and offshore major operating sites, based on Shared Socioeconomic Pathway^d (SSP) emission scenarios 1-2.6, 2-4.5 and 5-8.5.

Even in the highest emissions pathway (SSP5-8.5) the results of our analysis suggest that, on the basis of the 50th percentile values and compared to the baseline used (1991-2020), changes in the physical parameters considered are generally unlikely to be significant over the medium term.

There is, however, uncertainty across different scenarios and wider variances were observed when looking at the 5th and 95th percentile values. Where the data do suggest greater potential for climate-related changes in physical conditions, we intend to consider whether further work is necessary to understand the potential for those changes to adversely impact our operations. For example, modelled changes in extreme precipitation by 2030 (50th percentile values) are less than 10% across all onshore major operating sites apart from Oman – where we have already undertaken hydrological studies and flood risk assessments that have supported the development of our operations there.

Our transition risk scenario analysis identified impacts on the earnings of our oil-priced businesses as having the most potential to impact the resilience of our strategy in 2030. Therefore, and viewing resilience through the same lenses that we describe above, we have considered the extent to which our oil and gas production business would need to be impacted by evolving physical risk over the same timeframe for the scale of financial impact to be sufficient to jeopardize the resilience of our strategy out to 2030. We concluded that a significant proportion of our combined oil and gas portfolio would need to be either permanently shut in or temporarily shut down to jeopardize our strategic resilience in this way.

Historically, severe weather risks to our operated assets have not occurred at a scale which could reduce earnings so significantly as to jeopardize the resilience of our strategy. As reflected in the latest science from the IPCC, it is in the nature of climate-induced severe weather events that their occurrence, intensity and severity are unpredictable and uncertain. Our own analysis on major operating sites, described above, is consistent with this IPCC view.

Despite this uncertainty, we have found no definitive basis in either the IPCC report or the limited number of detailed studies we have undertaken (see [page 62](#)), to conclude that climate-change-induced increases in the frequency or severity of severe weather events would be likely to result, at any point in time out to 2030, in disruption and shutdowns across our oil and gas portfolio on a scale that would reduce earnings so significantly as to jeopardize the resilience of our strategy.

For the purposes of this Recommended Disclosure, the resilience of our strategy was considered separately for the relevant transition and physical risks; accordingly, we did not seek to take account of any interdependencies or cumulative effects between the two types of climate-related risk, and the associated potential financial impact.

^d SSPs have been developed by the climate change research community to describe plausible major global developments that together would lead in the future to different challenges for mitigation and adaptation to climate change. The SSPs are based on five narratives describing alternative socioeconomic developments, including sustainable development, regional rivalry, inequality, fossil-fuelled development and middle-of-the-road development.

Our approach to testing resilience to transition risk

Most of our analysis focused on our medium-term time horizon (2030) – far enough ahead to provide a divergent range of scenarios, while not so far ahead that it is unrealistic to attempt to generate credible financial metrics for bp, or an individual business area within bp. For variables considered most significant (see below), we also assessed resilience over the period 2025-30.

Our analysis sought to quantify the potential impact of a range of scenarios, including those consistent with 1.5°C, on bp's currently held (at the time the analysis was completed) internal reference group business outlook to 2030. This outlook is used for internal corporate planning and holds a current deterministic view of our portfolio, activity set, cost and capital frame. The outlook used in our analysis aligned to the strategic direction shared at the 10-11 October 2023 investor update, and the financials lie within the range of financial outcomes set out in that announcement.^a

The steps we took as part of our scenario analysis approach are outlined here at a high level.

1. **Whole company assessment:** We defined, through quantitative analysis, which business areas could have both the financial scale and clear transition exposures to potentially impact bp's strategic resilience.
 - a. We assessed the business areas in our portfolio by i) quantitatively evaluating each business area's 'potential significance' – i.e. its expected contribution to bp group adjusted EBITDA★ in 2030 and therefore the quantum of financial impact that might be put at risk by transition uncertainty (including pathways consistent with 1.5°C); and ii) by identifying, for each, whether there were primary potential value driver(s) that different transition pathways might impact ('transition risk driver(s)'). This was performed to allocate the most appropriate analysis technique to that business (see 1b and 1c).
 - b. Ten business areas (see table on [page 67](#)), representing over 80% of our expected 2030 adjusted EBITDA, were identified as both providing a potentially significant financial contribution and facing primary transition risk drivers, and accordingly were subjected to the driver-based scenario analysis set out in steps 2a-2c below.
 - c. The remaining business areas were taken forward to a simplified scenario analysis, per step 2d below.
2. **Scenario analysis:** We tested the financial impact of transition on all of bp's business areas in 2030 through either specific 'driver-based' scenario modelling (that includes 1.5°C and current policies), or by 'simplified' conservative scenario analysis, that modelled cases likely to be beyond these ranges.
 - a. For the driver-based scenario analysis, we selected the primary transition risk driver(s) for each business area – the variable(s) from the WBCSD Scenario Catalogue representing what we consider to be the primary driver(s) of that business area's exposure to the energy transition. For each transition risk driver, we extracted the full range of 2030 outcomes within each scenario 'family'. Given the global nature of the transition risks and opportunities we have identified, we used the 'world' values in the Catalogue except for gas price (see table on [page 67](#)).
 - b. By calibrating the WBCSD Scenario Catalogue 2030 scenarios to relevant business metrics underpinning our strategic planning (for example, oil price or EV demand/utilization), we modelled the impact of each variable, across the full range of scenarios and each scenario family, on the 2030 expected earnings (adjusted EBITDA) for the associated business area(s). For example, we applied an earnings rule of thumb deemed appropriate to the period in question to the deviation of oil prices in WBCSD versus our reference case price. This analysis was unmitigated (see 'Other key considerations').
 - c. This enabled us to assess the potential for each scenario to materially impact group adjusted EBITDA in 2030 (and by implication associated cash flows), against the reference group business outlook. By modelling the specific business area within the reference group business outlook (described in step 1b above), its exposure to the most extreme range of the respective scenario could be assessed to identify which (if any) variables(s) and scenario(s) could have the potential to impact strategic resilience (as defined below) most materially, and as such, which business areas should be carried forward into a multi-year resilience assessment.
 - d. For the simplified scenario analysis, we took a simpler conservative approach, by evaluating whether a scenario in which each business area's expected 2030 adjusted EBITDA is assumed to be reduced to zero – an outcome at least as detrimental to that business area's adjusted EBITDA as could reasonably be expected to result from ranges associated with the trajectory of each of the 1.5°C, 2°C or BAU scenario families – could have the potential to impact strategic resilience (as defined below) materially.
3. **Multi-year resilience test:** This step tested bp's resilience to the exposure of any sufficiently material business areas to downside scenarios that may have the potential to jeopardize the ability to generate surplus cash flow★ and a strong cash cover ratio and gearing level – financial metrics that were treated for the purposes of the analysis as representing financial evidence of delivery of bp's strategic priorities. From step 2, only the exposure to oil price was assessed as sufficiently material in this sense, and hence carried forward for multi-year resilience analysis. Our multi-year (2025-30) oil price resilience test considered sustained low oil prices consistent with the most extreme WBCSD Scenario Catalogue 2025 and 2030 scenarios – for 2025 the IEA (World Energy Model Net Zero Energy 2050) price at \$52/bbl, and for 2030 the UN PRI (Inevitable Policy Response Required Policy Scenario) at \$31.8/bbl (both 2021 \$ real).

Other key considerations

- For the purposes of steps 2 and 3, we considered the resilience of our strategy to climate-related transition risk through the three lenses described on [page 61](#). We defined the following as proxy indicators for these lenses:
 - Group surplus cash flow, to confirm whether after funding, among other things, capital spend within our disclosed capital frame (10-11 October 2023 investor update) and the dividend/share assumed in our reference group business outlook, sufficient surplus cash flow remains to maintain or reduce net debt and/or make share buybacks.
 - Healthy cash cover ratio and gearing★ as indicators of the ability to maintain a strong investment grade credit rating.

^a As was the case for the analysis presented in the *bp Annual Report and Form 20-F 2021*, the financials used do not include any reference to the shareholding in Rosneft that bp announced its intention to exit from on 27 February 2022.

- For steps 2 and 3, we made the simplifying assumption that, aside from the driver being modelled, our strategy, operating model, cost basis, volumes, margins, sales proceeds and taxes would remain unchanged out to 2030. We have also not deviated from bp's reference view of potential future shareholder distributions and uses of surplus cash as a basis for analysis.
- There are a range of mitigations or actions that we might naturally be expected to take in response to external market, price and demand trends, including cost reductions, portfolio adjustments, capital reallocation or capital reductions within the frames set out in our strategy.
- For steps 2 and 3, given we would seek to make use of opportunities to maintain our strategic flexibility in the face of the many uncertainties of the energy transition, our methodology retains the optionality in downside scenario modelling to apply some or all of these mitigations.
- The design of a strategic resilience analysis involves numerous methodological choices and assumptions – any one of which could reasonably have been different, leading to

different outcomes. We have found value in conducting this analysis; however, we are mindful of the limitations to any such exercise and the highly qualified nature of any conclusions which may be drawn from it. The disclosures provided here should be read in conjunction with the rest of our strategic report, where we discuss how we have developed, and continue to evolve, our approach to strategy.

- As outlined above, we utilized our latest internal reference group business outlook as the basis against which resilience has been tested, as this is our latest deterministic view against which to model the transition sensitivities to 2030 and aligns to the strategic update provided to investors in October 2023. Alongside disclosed elements such as the capital frame range to 2030, this includes shaping assumptions such as future distribution and net debt management. Through conducting this analysis, we do not intend to imply or commit to a specific forward trajectory of usage of cash, beyond those disclosed in the investor update in October 2023 and previously published strategy updates.

While we cannot disclose, for confidentiality reasons, the detail of the deterministic case, the test assesses whether the resilience indicators in our reference group business outlook are impacted by the transition uncertainties tested. Further, by the nature of the timeframes considered, a variety of uncertainties exist around this deterministic case (including transition risk itself) as indicated by the range of adjusted EBITDA disclosed in the full year and 4Q results update on 6 February 2024. It is not practical, and we have not attempted, to extend the analysis conducted here to any other potential outcomes within the disclosed range of group adjusted EBITDA.

- Where rules of thumb have been applied, to convert variance in hydrocarbon price to variance in adjusted EBITDA, these are deemed appropriate to the period in question – i.e. they reflect the respective 2030 (step 2) and 2025-30 (step 3) portfolios and price leverage for this period. Due to the evolution of bp's portfolio, these rules of thumb may diverge from any short-term rule of thumb that we publish.

WBCSD Scenario Catalogue family ranges for 2030 key transition variables

Business area		TCFD/WBCSD variable	BAU		Below 2°C		1.5°C	
			Min	Max	Min	Max	Min	Max
Resilient hydrocarbons	Oil and natural gas production	Oil price ^a (\$2021/bbl)	62.12	82.00	47.70	76.88	31.80	68.87
		Natural gas price ^b (\$2021/mmbtu)	3.73	5.42	2.91	5.61	1.90	5.88
	Refining – refined oil demand	Primary energy demand for oil (% vs 2020)	-0.1	15.2	-3.1	11.6	-16.8	-1.0
		Final demand for liquid biofuels in aviation (EJ/yr)	0.21	1.03	0.21	1.64	0.44	1.73
	Biogas	Biogas demand in road transport (EJ/yr)	0.00	0.18	0.01	0.25	0.00	0.19
Convenience and mobility	EV charging	Final energy demand for electricity in road transport (EJ/yr)	2.53	6.49	3.40	8.37	4.09	9.18
	Aviation fuel sales	Liquid fuel consumption in aviation (EJ/yr)	14.95	20.06	14.73	18.84	9.37	14.66
	Conventional fuels retail	Final energy demand for liquid oil in road transport (EJ/yr)	72.17	93.57	65.20	93.87	48.57	78.92
	Conventional B2B & supply							
	Conventional road lubricants							
Low carbon energy	Renewables	Renewable capacity additions (GW vs 2020)	3,055	6,181	3,131	7,671	5,438	9,797
	Hydrogen production	Hydrogen consumption (EJ/yr)	0.20	4.32	0.20	5.28	0.48	10.75

For the other business areas not shown above, we applied the generic scenario analysis methodology described in point 2d on [page 66](#), thereby ensuring coverage of all of bp's business areas.

^a Oil price sensitivities have been applied to the oil and gas production portfolio that is linked to oil marker prices – as such it not only reflects oil production exposure, but also a proportion of bp's natural gas production that is contracted off oil marker prices.

^b Gas prices shown reflect Henry Hub price ranges. Where available in the TCFD/WBCSD data sets Asian and UK gas price sensitivities have also been selected and compared to the Henry Hub sensitivity percentages with the maximum deviation selected and applied to the respective Asian and NBP rules of thumb for these parts of the gas portfolio, in order to provide the most conservative uncertainty range.

Climate-related financial disclosures continued

Metrics and Targets

TCFD Recommendation:

Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.

We present the principal group-wide metrics and targets used to assess and manage climate-related risks and opportunities in line with our strategy and risk management process below, with metrics and targets mapped to the most relevant of TCFD's cross-industry, climate-related metric categories (such as 'transition risks').

The metrics and targets themselves are disclosed at the most appropriate locations in this strategic report.

TCFD recommended disclosures – metrics and associated targets/goals

a) Disclose the metrics used by the organization to assess material climate-related risks and opportunities in line with its strategy and risk management process.

c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.

Transition risks

- Note 5 to Financial statements: Segmental analysis. Segment revenue (in table), [pages 193-197](#).
- Estimated net proved reserves and production (net of royalties), [page 38](#).
- Note 4 to Financial statements: Disposals and impairments, [pages 190-192](#).
- Note 8 to Financial statements: Impairment losses (in table), [page 198](#).
- Oil and natural gas prices used for value-in-use impairment testing and recoverability of asset carrying values, [pages 178 and 280](#).

Our strategic 2025 targets and 2030 aims – resilient hydrocarbons, [page 13](#).

Physical risks

- Number of major operating sites in regions with medium to extremely high water stress, [page 60](#).
- Freshwater withdrawals and consumption at major operating sites in regions with high or extremely high water stress, [page 54](#).

Aim 17 (water positive): progress update, [page 54](#).

Climate-related opportunities

- Our strategic metrics, [page 13](#) (in table, relevant metrics with [T](#)).
- Note 5 to Financial statements: Segmental analysis. Segment revenue (in table), [pages 193-197](#).
- Adjusted EBITDA★ from transition growth engines, [page 12](#).
- Renewables – installed capacity, developed to FID and pipeline, [page 39](#).

Our strategic 2025 targets and 2030 aims – convenience and mobility, and low carbon energy, [page 13](#).

Capital deployment

- Disciplined investment allocation: 2022-25 guidance, capital allocation and internal rate of return (IRR), [page 28](#).
- Price assumptions, key investment appraisal assumptions, [page 30](#) (in table, indicated with [T](#)).
- Amount invested in transition growth engines (aim 5), [page 50](#).
- Additional information – capital expenditure by segment, [page 336](#).
- Note 7 to Financial statements: expenditure on research and development (in table), [page 197](#).
- Note 8 to Financial statements: exploration and evaluation costs (in table), [page 198](#).

Aim 5 (more \$ into the transition): progress update, [page 50](#).

Internal carbon prices

- Internal carbon price, [page 30](#).

Remuneration

- Directors' remuneration report metrics: Sustainable emissions reductions, [pages 114-115](#).

Aim 7 (incentivizing employees): progress update, [page 50](#).

b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks

GHG emissions

- Key performance indicators (relevant KPIs shown with [T](#)), [page 24](#).^a
 - Scope 1 and 2, in SECR table [page 51](#).
 - Ratio of Scope 1 and 2 emissions: gross production, in SECR table [page 51](#).
 - Scope 3 (category 11, to which our aim 2 relates) performance, [page 49](#).^b
 - TCFD: risks as described in Strategy A, [page 60](#).
 - Risk factors, [page 77](#).
- A further breakdown of our GHG and energy data by business group is available in our ESG datasheet at bp.com/ESG.

Aim 1 (net zero operations): progress update, [page 48](#).
Aim 2 (net zero production): progress update, [page 49](#).
Aim 3 (net zero sales): progress update, [page 49](#).
Aim 4 (reducing methane): progress update, [page 49](#).

^a These are our KPIs for the purposes of our disclosures pursuant to the UK CFD Regulations and Section 414CB (2A) (h) of the Companies Act 2006.

^b In determining the Scope 3 emissions that are 'appropriate' to be disclosed for the purposes of this Recommended Disclosure, we have considered this term in the context of the recommendation to disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities. The relevant target that we use in respect of Scope 3 emissions is our aim 2, which is aligned to category 11 of Scope 3.

Sustainability continued

Our approach to sustainability

Our approach to sustainability is targeted, systematic and collaborative – built on strong foundations that guide the way we work and support our net zero, people and planet aims.

Safety comes first

At bp, safety comes first. We want to improve our safety performance and work towards the goal we set in 2021 to eliminate fatalities, life-changing injuries and tier 1 process safety events.

We deeply regret the fatalities and life-changing injuries that occurred at bp in 2023. In May a contractor in our US Permian operations was fatally injured when operating a forklift, and in June a contractor in the same region suffered a life-changing injury while performing manual activity. At our TravelCenters of America business, one employee was struck by a vehicle and fatally injured and another employee was killed in a workplace violence incident^a.

We have offered our condolences and support to the families and employees affected. We are taking action to learn from these incidents to help drive further improvements in safety.

Keeping people safe

We monitor and report on key workforce personal safety metrics in line with industry standards. We include both employees and contractors in our data.

In 2023 our recordable injury frequency (RIF) increased by 47% compared to 2022. We attribute an increase in injuries in part to the onboarding of retail operations we acquired such as *Thorntons*. Plans are in place to help prevent injuries in future.

In 2023 we made further improvements to mitigate safety risks in refining and production by strengthening our safety barriers and the guidance in our Operating Management System (OMS).

 RIF key performance indicator, [page 24](#)

Driving safety

Driving is one of the biggest personal safety risks we face at bp. In 2023 seven severe vehicle accidents occurred, a decrease from 10 in 2022. The number of kilometres driven fell by 4.2% over the same period.

	2023	2022	2021
Severe vehicle accident rate	0.023	0.037	0.034

Our Operating Management System

Our OMS provides a single group-wide framework for delivering safe, reliable and compliant operations. Our OMS sets out the way in which our businesses around the world are expected to understand and manage their environmental and social impacts, including requirements on engaging with stakeholders who may be affected by our activities.

We review and amend these requirements from time to time to reflect our priorities. Any variations in the application of our OMS, in order to meet local regulations or circumstances, are subject to a governance process. Recently acquired operations need to transition to our OMS.

In 2023 we updated our OMS with a view to making it simpler and clearer, to support more rigorous application. The updates included revised requirements in our environmental and social practices that cover investment decisions, projects and operations. These updated practices set out requirements to identify, prevent and mitigate carbon, environmental and social impacts and risk and to identify related opportunities.

Our OMS requires each of bp's operating businesses and functions to create and maintain its own OMS handbook, describing how it will carry out its local operating activities.

We use a 'three lines of defence' model to test the effective management of all types of risk, including safety. The nature and extent of first, second and third lines of defence activities are based on the type and level of risk.

Preventing incidents

We carefully plan our operations with the aim of identifying potential hazards and having rigorous operating and maintenance practices applied by capable people to manage risks at every stage. We design our new facilities in line with process safety, good design and engineering principles. We track our safety performance using industry-aligned metrics such as those found in the American Petroleum Institute recommended practice 754 and the International Association of Oil & Gas Producers recommended practice 456.

Our combined reported tier 1 and tier 2 process safety events★ (PSEs) have generally decreased over the last 11 years, apart from in 2019. This downward trend continued in 2023, with 11 fewer (22%) than in 2022.

We investigate serious or complex incidents, which may include near misses, and we also use leading indicators, such as inspections and equipment tests, to monitor the strength of controls to prevent incidents.

We have also made progress in preventing and reducing spills. In 2023 there were 100 oil spills compared with 108 in 2022. Although portfolio changes may affect the overall baseline of our operations, our goal is still the elimination of tier 1 PSEs.

	2023	2022	2021
Tier 1 and tier 2 process safety events★	39	50	62
Oil spills – number	100	108	121
Oil spills – contained	52	57	73

^a In 2023 bp acquired the US-based TravelCenters of America business. Shortly after the acquisition was completed, two separate incidents occurred resulting in fatalities. At the time of publication, TravelCenters of America safety reporting processes were still being integrated into bp's reporting processes and as such, these fatalities are not included in reported fatality data for 2023.

Sustainability continued

Emergency preparedness

The scale and extent of bp's operations mean we must be prepared to respond to a range of possible disruptions and emergency events. We maintain disaster recovery, crisis and business continuity management plans and work to build day-to-day response capabilities to support local management of incidents. We test our plans and preparedness through exercises that simulate real-life scenarios. In 2023 we conducted a number of exercises in countries including Egypt and Spain.

Security


We monitor for hostile actions that could harm our people or disrupt our operations. These actions might be connected to political or social unrest, terrorism, armed conflict or criminal activity. We take these potential threats seriously and assess them continuously. Our 24-hour response information centre in the UK uses state-of-the-art technology to monitor evolving high-risk situations in real time. It helps us to assess the safety of our people and provide them with practical advice if there is an emergency.

Cyber security

The severity, sophistication and scale of cyber attacks continues to evolve. Increasing digitization and reliance on IT systems and cloud platforms makes managing cyber risk an even greater priority for many industries, including our own. Direct or collateral impact can come from a variety of cyber threat actors, including nation states, criminals, terrorists, hacktivists and insiders. As in previous years, we have experienced threats to the security of our digital systems and our barriers have worked well to mitigate and contain them to minimize any impact on our business.

We have a range of measures to manage this risk, including the use of cyber security policies and procedures, security protection tools, threat monitoring and event detection capabilities, and incident response plans. We conduct exercises to test our response to, and recovery from, cyber attacks. We collaborate closely with governments, law enforcement and industry peers to understand and respond to threats.

To encourage vigilance among our employees, our extensive cyber security training courses and awareness programme provide regular education on a wide range of topics such as phishing and the correct classification and handling of our information. We also use a cyber barometer tool to empower individual risk mitigation.

 **How we manage risk, page 73**
Additional disclosures – cyber security, page 360

Working with contractors

Through documents that help bridge between our policies and those of our contractors, we define the way our safety management system co-exists with systems used by our contractors to manage risk on a site. We conduct risk-based quality, technical, health, safety and security audits before awarding contracts. Once contractors start work, we continue to monitor their safety performance. Our OMS includes requirements and practices for working with contractors. Our standard model contracts include health, safety and security requirements. We expect and encourage our contractors and their employees to act in a way that is consistent with our code of conduct and take appropriate action if those expectations, or their contractual obligations are not met.

Our partners in joint arrangements

We monitor performance and how risk is managed in our joint arrangements★, whether we are the operator or not. In joint arrangements where we are the operator,

our OMS, code of conduct and other policies apply. We aim to report on aspects of our business where we are the operator – as we directly manage the performance of these operations. Where we are not the operator, our OMS is available as a reference point for bp businesses when engaging with other operators and co-venturers. We have a group framework to assess and manage bp's exposure related to safety, operational and bribery and corruption risk from our participation in these types of arrangements.

Where appropriate, we may seek to influence how risk is managed in arrangements where we are not the operator.

The people and governance committee reviews workforce policies and practices and their alignment with bp's strategy, purpose, beliefs and culture, and conducts workforce engagement measures.

 **People and governance committee report, page 94**

Our people

Workforce by gender

As at 31 December 2023	Male		Female		Female %	
	2023	2022	2023	2022	2023	2022
Board directors	6	6	6	5	50	45
Leadership team	4	5	7	6	64	55
Group leaders	193	187	102	91	34	33
Subsidiary directors	384	488	174	212	31	30
All employees ^a	51,800	41,000	35,900	26,500	41	39

Number of employees

As at 31 December 2023	2023	2022	2021
Gas & low carbon energy	4,800	4,200	4,000
Oil production & operations	8,800	8,600	8,800
Customers & products	63,400 ^b	44,700	43,600
Other businesses & corporate	10,800	10,100	9,500
Total	87,800	67,600	65,900

a Some employees have not disclosed gender, therefore are not included in this total.

b This figure reflects new acquisitions including TravelCenters of America.

Our culture

We want to build a culture in which all our employees can thrive. Our culture frame 'Who we are' sets out the culture we want to build at bp.

Our culture is reinforced by various factors including our code of conduct, our approach to diversity, equity and inclusion, compliance with local legislation and regulations, speak-up channels and monitoring employee sentiment. Read more about the board's role in overseeing bp's culture on [page 97](#).

Developing our people

Our people are crucial to delivering our purpose and strategy. We aim to recruit talented people from diverse backgrounds, and we invest in training, development and competitive rewards for them. We focus our attraction, recruitment, development and retention activities to provide the support and skills they need to thrive and help bp succeed.

In 2023 we strengthened our development offer, evolving it to meet the demands of the energy transition. We launched several development initiatives, including new learning pathways on

our global learning platform grow@bp, to help employees increase their knowledge of our sustainability aims, the energy transition and our transition growth engines.

In 2023 bp employees collectively completed more than 1.3 million hours of formal learning (2022 1.1 million hours). This learning is available to all employees and covers safety, technical, leadership, digital and sustainability skills. Our development offer also includes our mandatory curriculum focused on compliance with applicable laws and regulations as well as conformance with bp's internal standards.

Diversity, equity and inclusion

Our aim 14 is greater diversity, equity and inclusion for our workforce and our customers, and to increase supplier diversity spend by 2025 to \$650 million for US-related spend^a. We want our workforce and customers to experience greater equity – fair treatment according to everyone's different needs and situations. We aim to do this by improving workforce diversity and workplace inclusion, making customer experiences more inclusive, and increasing our annual expenditure with certified diverse suppliers, including female and under-represented or minority groups, to \$650 million for US-related spend by 2025.

We report information and disclose against targets on the representation of women and ethnic minorities on our board and executive management. Read more on [page 83](#).

Gender equality

We are working to further improve the gender balance across our workforce. In December 2023 seven of the 11 positions in our leadership team were held by women. Our ambition is to reach gender parity for the top levels of leadership (top 120 roles) by 2025 and parity for all executive-level employees (group leaders) by 2030. We also have an ambition of 40% female representation for the next layer of senior leadership (senior-level leaders) by 2030. In 2023 34% of group leader roles were filled by women (2022 33%).

 [bp Gender and Ethnicity Pay Gap Report, bp.com/ukgenderpaygap](#)

Ethnic diversity


We have made progress on our ambition to increase minority representation in the UK and US.

In 2023 we continued our Leadership Inclusion for Talent (LIFT) programme – a 12-month development experience – to support the progression of under-represented minority talent in the US and UK into senior leadership roles.

We also delivered our mandatory Race4Equity racial equity and inclusion training programme to almost 100% of our most senior leaders and 84% of employees at other levels in the US and UK.

In 2023 33% of our group leaders came from countries other than the UK and the US (2022 33%).

 [Read more in our DE&I report at bp.com/diversity](#)

 [Composition of the board, page 83](#)
[Diversity reporting in line with the Parker Review, page 96](#)
[Diversity reporting in line with the Listing Rules, page 133](#)

Inclusion

To promote an inclusive culture, we provide leadership training and support employee-run advocacy groups in areas such as gender, ethnicity, sexual orientation and disability.

As well as bringing employees together, these groups support our recruitment programmes and provide feedback on the potential impact of policy changes. Each group is sponsored by a member of the bp leadership team.

We aim to provide equal opportunity in recruitment, career development, promotion, training and reward for all employees – regardless of ethnicity, national origin, religion, gender, age, sexual orientation, marital status, disability or any other characteristic protected by applicable laws.

We have embedded 'Hiring Inclusively', a set of globally consistent recruiting principles to help enable an inclusive, equitable approach to hiring. It supports recruiters to review internal and external market data for skills availability by gender and by other historically under-represented groups in some geographies.

Supporting disabled employees

We continue to take steps to help improve the experience of the workplace for employees with disabilities, with support from employee-led disability, neurodiversity, and mental wellbeing business resource groups (BRGs) offering:

- Inclusive recruitment training, disability and neurodiversity awareness sessions, as well as specific internships and apprenticeships.
- Access to assistive technology support (such as voice recognition software and screen readers) for all employees.
- Improved accessibility in communications, ensuring bp's brand visual standards are more accessible.

If existing employees become disabled, our policy is to engage and use reasonable accommodations or adjustments to enable continued employment.

We have partnerships to help source talent, assist with research and training and support students with disabilities to build the skills they need to access the workplace. Our partners include the National Organization on Disability in the US, and the Business Disability Forum in the UK. bp is also part of the Valuable 500 – a global business collective made up of 500 CEOs and their companies, to drive lasting change for people around the world living with a disability.


Employee engagement

Our managers hold team and one-to-one meetings with their team members, complemented by formal processes through works councils in parts of Europe.

We regularly communicate with employees on factors that affect bp's performance, and seek to maintain constructive relationships with labour unions formally representing our employees.

We monitor employee sentiment through our 'Pulse annual' employee survey, which is sent to all eligible employees, and through our 'Pulse live' survey, which is sent to a representative sample of employees weekly. Our overall engagement metric, employee engagement, increased to 73% (2022 70%), while pride in working for bp increased to a record 80% (2022 78%).

We will continue to develop engagement plans based on feedback from the annual and weekly surveys to help us deliver on safety, and meet our strategic objectives and our 2025 targets, focusing on four areas to drive further progress – leadership, transforming, psychological safety and inclusion.

 [Our employee engagement key performance indicator, page 27](#)
[How the board engaged with the workforce, page 92](#)

Share ownership

We encourage employee share ownership and have a number of employee share plans in place. For example, we operate a ShareMatch plan, matching bp shares purchased by our employees. We also make annual share awards as part of our total reward package all for senior and mid-level employees globally, and a portion of our more junior professional grade employees.

 [Directors' remuneration report, page 105](#)

^a In 2023 we reset our supplier diversity target from \$1 billion by 2025.

Sustainability continued

Mental health and wellbeing

We include an employee wellbeing index in our 'Pulse annual' employee survey and weekly 'Pulse live' surveys. Results from 2023 showed that employee wellbeing increased by four points to 72% (2022 68%).

We took further action to create workplaces where people can talk openly about mental health and get help if they need it. We updated our mental health training programmes, which are designed to build employees' awareness and their ability to care for themselves and others.

Ethics and compliance

Our code of conduct

Our code sets standards and expectations for how we do the right thing and empowers our employees to speak up without fear of retaliation.

It puts safety first, and together with our Safety Leadership Principles and Operating Management System (OMS), helps us make safe and ethical decisions, act responsibly, comply with applicable laws and deliver on our sustainability frame.

Our code applies to all bp employees, officers and board members. Our regular mandatory training and communications help employees understand how to apply our code and how to raise questions or concerns.

All bp employees are required to confirm annually that they have read and understand our code and complied with its principles. We expect and encourage all our contractors and their employees to act in ways that are consistent with it.

Any concerns or enquiries can be raised through multiple speak-up channels. These include line managers, senior leaders, and contacts in our people & culture, ethics & compliance or legal teams. We also have a confidential global helpline, OpenTalk. It is available in 75 languages and can be accessed all day, every day on the telephone or internet, by employees, the wider workforce, communities, business partners and other stakeholders. In most locations, anyone has the right to contact OpenTalk anonymously except where this is prohibited by law.

Any instances where we believe individuals have fallen short of our expectations, set out in our beliefs, 'Who we are' and our code of conduct, are taken very seriously and, where appropriate, a formal investigation is carried out.

We may take action in response to reported concerns, for example through training and monitoring trends in our 'Pulse annual' employee survey data to help proactively mitigate issues around misconduct. We follow a disciplinary process and will issue sanctions where appropriate, which may include dismissal.

We received more than 2,250 concerns or enquiries through these channels in 2023 (2022 1,350). In 2023 around 66 separations resulted from non-conformance with our code or unethical behaviour^a.

As in 2022 the most frequently raised concerns related to bullying, harassment and discrimination, with these accounting for around half of all concerns. The second most common issue was alleged fraud.



bp.com/codeofconduct

Anti-bribery and corruption

We operate in parts of the world where bribery and corruption present a high risk. We have a responsibility to our employees, our shareholders and the countries and communities in which we do business to be ethical and lawful in all our work.

Our code of conduct explicitly prohibits engaging in bribery or corruption in any form. Our group-wide anti-bribery and corruption policies and procedures include measures and guidance to assess risks, understand relevant laws and report concerns. They apply to all bp-operated businesses.

We provide appropriate training including for those employees in locations or roles assessed to be at a higher risk of bribery and corruption. In 2023 around 10,500 employees completed anti-bribery and corruption training as part of our ethics and compliance risk-based learning. This is higher than the 7,500 employees trained in 2022, due to the rolling time schedule we use to assign training.

We also conduct anti-bribery compliance audits on selected suppliers to assess their conformance with our anti-bribery and corruption contractual requirements. We take corrective action with suppliers and business partners who fail to meet our expectations, which may include terminating contracts. In 2023 we issued 31 ABC supplier audit reports. (2022 37).

Political donations and activity

We prohibit the use of bp funds or resources to support any political candidate or party. We recognize the rights of our employees to participate in the political process and these rights are governed by the applicable laws in the countries where we operate. Our stance on political activity is set out in the bp code of conduct.

In the US we provide administrative support for the bp employee political action committee (PAC) – a non-partisan, employee-led committee that encourages voluntary employee participation in the political process. All bp employee PAC contributions are weighed against the PAC's criteria for candidate support and reviewed for compliance with federal and state law before funds are passed to the recipients requested by our employees, and are publicly reported in accordance with US election laws. Donations to political candidates made by the PAC are from employee contributions and not bp funds.

Tax transparency

Our code of conduct informs the responsible approach we take to managing taxes. We have adopted the B Team responsible tax principles and we engage in open and constructive dialogue with governments and tax authorities.

We comply with the tax legislation of the countries in which we operate and we do not tolerate the facilitation of tax evasion by people who act for or on behalf of bp.

We are committed to transparency around our tax principles and the taxes we pay. We paid \$11.9 billion in corporate income and production taxes to governments in 2023 (2022 \$12.5 billion).



[bp Tax Report](#), bp.com/tax

^a This total excludes exits of contractors, suppliers, vendors and employees at our retail and heliport sites.

How we manage risk and risk factors

How we manage risk

bp manages, monitors and reports on the principal risks and uncertainties we have identified that can impact our ability to deliver our strategy. These are described in Risk factors on [page 77](#).

bp's system of internal control is a holistic set of internal controls that includes policies, processes, management systems, organizational structures, culture and standards of conduct employed to manage bp's business and associated risks.

bp's risk management system

bp's risk management system and risk management policy are designed to provide a consistent and clear framework for managing and reporting risks from the group's business activities and operations to management and to the board.

The system seeks to avoid incidents and enhance business outcomes by allowing us to:

- Understand the risk environment, identify the specific risks and assess the potential exposure for bp.
- Determine how best to deal with these risks to manage overall potential exposure.
- Manage the identified risks in appropriate ways.
- Monitor and seek assurance over the effectiveness of the management of these risks and intervene for improvement where necessary.
- Report up the management chain and to the board on a periodic basis on how principal risks are being managed, monitored and assured, with any identified enhancements that are being made.

Risk oversight and governance


Our key risk oversight and governance committees include:

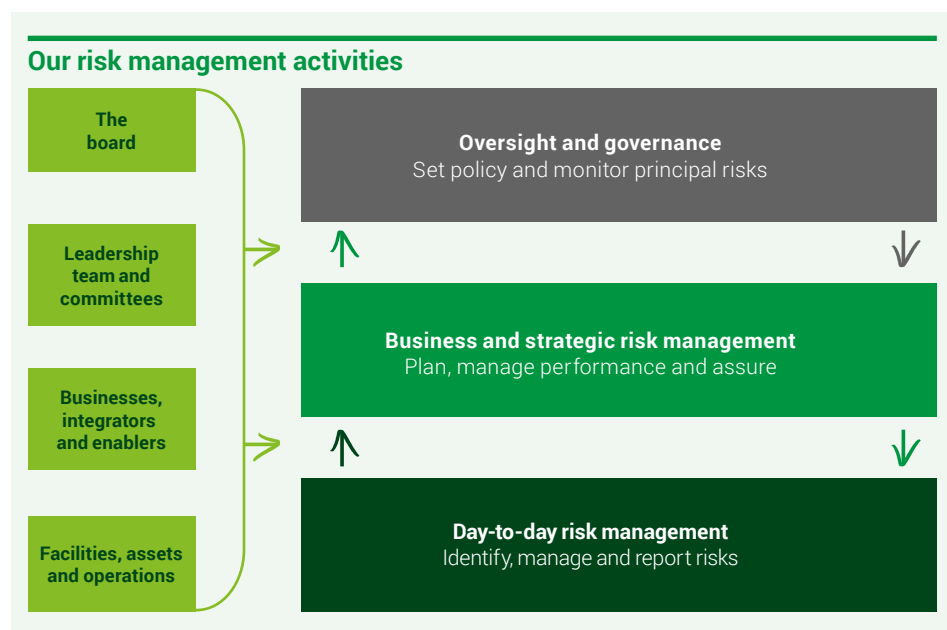
Board and committees

- bp board.
- Audit committee.
- Safety and sustainability committee.
- Remuneration committee.
- People and governance committee.

Leadership team and committees

- Leadership team meeting – for oversight and for strategic and commercial risks.
- Group operations risk committee – for health, safety, security, environment and operations integrity risks.
- Group financial risk committee – for finance, treasury, trading and cyber risks.
- Group disclosure committee – for financial reporting risks.
- People and culture committee – for employee risks.
- Group ethics and compliance committee – for legal and regulatory compliance and ethics risks.
- Group sustainability committee – for non-operational sustainability risks.
- Resource commitment meeting – for investment decision risks.
- bp quarterly internal audit meeting – for assurance on the oversight of bp's principal risks.

 bp governance framework, [page 88](#), board activities, [page 90](#), committee reports, [pages 94-107](#) and risk management and internal control, [page 129](#)



Acquired businesses

Integration plans are developed to transition acquired businesses into bp's system of internal control and risk management framework, over an appropriate timeframe.

How we manage risk and risk factors continued

Day-to-day risk management

Management and employees at our facilities, assets, and within our businesses, integrators and enablers seek to identify and manage risk, promoting safe, compliant and reliable operations. bp requirements, which take into account applicable laws and regulations, underpin the practical plans developed to help reduce risk and deliver safe, compliant and reliable operations as well as greater efficiency and sustainable financial results.

Business and strategic risk management

Our businesses, integrators and enablers integrate risk management into key business processes such as strategy, planning, performance management, resource and capital allocation and project appraisal. They do this by using a standard framework for collating risk data, assessing risk management activities, making further improvements and in connection with planning new activities.

Oversight and governance

Throughout 2023, management, the leadership team, the board and relevant committees provided oversight of how principal risks to bp were identified, assessed and managed. They supported appropriate governance of risk management including having relevant policies in place to help manage risks.

Such oversight may include internal audit reports, group risk reports and reviews of the outcomes of business processes including strategy, planning and resource and capital allocation. bp's group risk team analyses the group's risk profile and maintains the group's risk management system. bp's internal audit team provides independent assurance to the chief executive and board as to whether the group's system of internal control is adequately designed and operating effectively to respond appropriately to the risks that are significant to bp.

Risk management processes

We aim for a consistent basis of measuring risk to:

- Establish a common understanding of risks on a like-for-like basis, taking into account potential impact and likelihood.
- Report risks and their management to the appropriate levels of the organization.
- Inform prioritization of specific risk management activities and resource allocation.

bp's risk management policy sets out requirements for the group to follow. These requirements support the consideration of three risk types:

- Strategic and commercial.
- Safety and operational.
- Compliance and control.

Risk identification – businesses, integrators and enablers identify risks across the risk types. Risks are identified on an ongoing basis – this can be done using a range of approaches including workshops, subject-matter expertise, hazard identification processes and engineering requirements.

Risk assessment – identified risks are assessed for potential impact and likelihood across a number of criteria, including health and safety, environmental, financial and non-financial (includes reputation and regulatory impact levels).

This aims to provide a consistent basis for the evaluation of potential impact and likelihood, facilitating a comparison across different risks.

Risk management and monitoring – risk management activities are prioritized where improvements are needed based on a number of factors, including the risk assessment, strength of existing risk management measures, strategy and plans and legal and regulatory requirements.

Risk management measures, including mitigations, are identified for each risk and monitored to the extent considered appropriate. To support leadership oversight of decisions relating to risk management, the appropriate organizational level (EVP, SVP, VP) are notified of risks and asked to endorse risk management measures, depending on the assessed potential impact and likelihood.

As part of bp's annual planning process, the leadership team and the board review the group's principal risks and uncertainties. These may be updated during the year in response to changes in internal and external circumstances.

There can be no certainty that our risk management activities will mitigate or prevent these, or other risks, from occurring. Further details of the principal risks and uncertainties faced are set out in Risk factors on [page 77](#).

Our risk profile

The nature of our business operations is long term, resulting in many of our risks being enduring in nature. However, risks can develop and evolve over time and their potential impact or likelihood may vary in response to internal and external events. These may include emerging risks which are considered through existing processes, including emerging risk communications to the board, bp's risk management system, the *bp Energy Outlook*, bp's technology-related news and insights publications, and ongoing emerging technology scanning and group strategic reviews.

We describe above how risks are managed. The following section provides examples of the particular risk management activities for each of bp's principal risks.

Strategic and commercial risks

Prices and markets

Our financial performance is impacted by fluctuating prices of oil, gas and refined products, technological change, exchange rate fluctuations, and the general macroeconomic outlook.

Our strategy is designed to accommodate a range of scenarios and be resilient to the volatility in the energy markets. This is supported through a diversified portfolio, a strong balance sheet and operating within a resilient and disciplined financial frame. We test our investment and project development costs against a range of pricing and exchange assumptions.

Accessing and progressing hydrocarbon resources and low carbon opportunities

Inability to access and progress hydrocarbon resources and low carbon opportunities could adversely affect delivery of our strategy.

For hydrocarbon resources our subsurface team is accountable for the delivery of high-value, carbon-efficient resources to deliver predictable and reliable investments today, as well as the long-term renewal of our hydrocarbon resources. Additionally, the subsurface team partners with innovation & engineering to prioritize technology development needs for the future. Our gas & low carbon energy business is accountable for the delivery of many of our low carbon opportunities through both organic and inorganic growth. This includes the development of our offshore wind, solar, onshore wind, hydrogen and carbon capture, use and storage businesses.

Major project delivery

Failure to invest in the best opportunities or deliver major projects★ successfully could adversely affect our financial performance.

We seek to manage this risk through our projects organization which exists to frame, build and execute projects across bp. The organization contains capability which includes the centre of expertise for appraisal and optimization, expertise to manage the design and build of projects and programmes, and collaboration with our businesses and enablers to ensure project objectives are met. The projects team delivers using its major projects common process which is systematically reviewed and continuously improved.

Geopolitical

The diverse locations of our business activities and operations around the world expose us to a wide range of political developments and consequent changes to the economic and operating environment. Geopolitical risk is inherent to many regions in which we operate, and heightened political or social tensions or changes in key relationships could adversely affect the group.

We seek to manage this risk at multiple levels, through:


- Identifying macro-level geopolitical trends in the geopolitical advisory council.
- Providing a clear focal point for political risk management in our regions, corporates & solutions business.
- Monitoring how geopolitical trends create risk at the country level through changes to our baseline threat assessments.

More broadly, we manage the risk on a day-to-day basis through development and maintenance of relationships with governments and stakeholders, and by being trusted partners in each country and region. In addition, we closely monitor events and implement risk mitigation plans where deemed appropriate.

Financial liquidity

External market conditions can impact our financial performance. Supply and demand and the prices achieved for our products can be affected by a wide range of factors including political developments, interest rates, consumer preferences for low carbon energy, global economic conditions, access to capital markets and the influence of OPEC+.

We seek to manage this risk through bp's diversified portfolio, our financial framework, liquidity stress testing, maintaining a significant cash buffer, regular reviews of market conditions and our planning and investment processes.

 **Energy markets, page 8**
Liquidity and capital resources, page 340
Liquidity, financial capacity and financial, including credit, exposure, page 77

Joint arrangements and contractors

Varying levels of control over the standards, operations and compliance of our partners including non-operated joint ventures (NOJVs), contractors and sub-contractors could result in legal liability and reputational damage.

bp's exposure in NOJVs is primarily managed by the NOJV-facing business team in the business or entity where ownership of bp's interest in the NOJV sits.

Support, verification and assurance is provided by the NOJV solutions team, safety and operational risk assurance, ethics & compliance functional assurance and group internal audit to drive a focused, deliberate and systematic approach to the set-up and management of bp's interests and exposure in NOJVs.

Our relationships with contractors are managed through the bp procurement processes with appropriate requirements incorporated into contractual arrangements.

Cyber security

Both targeted and indiscriminate threats to the security of our digital infrastructure and those of third parties continue to evolve rapidly and are increasingly prevalent across industries worldwide.

We seek to manage this risk through a range of measures, which include cyber security standards, security protection tools, ongoing detection and monitoring of threats and testing of cyber response and recovery procedures. We collaborate with governments, law enforcement agencies and industry peers to understand and respond to new and emerging cyber threats.

We build awareness with our employees, share information on incidents with leadership for continuous learning and conduct regular exercises, including with the leadership team, to test response and recovery procedures. For further detail on cyber security disclosures see [page 360](#).

Climate change and the transition to a lower carbon economy

Developments in policy, law, regulation, technology and markets, including societal and investor sentiment, related to the issue of climate change and the transition to a lower carbon economy could increase costs, reduce revenues, constrain our operations and affect our business plans and financial performance.

Risks associated with climate change and the transition to a lower carbon economy impact many elements of our strategy and, as such, these risks are managed through key business processes including setting the bp strategy and annual plan, capital allocation and investment decisions. The outputs of these key business processes are reviewed in line with the cadence of these activities. See [page 59](#) for more information on how transition risks are managed.

Competition

Inability to remain efficient, maintain a high-quality portfolio of assets and innovate could negatively impact delivery of our strategy in a highly competitive market.

We seek to manage this risk through our strategy, sustainability and ventures team by providing external insights on the economic, energy, market and competitive environment. Our strategy, sustainability and portfolio management teams use these insights to help define a resilient strategy for bp, including decisions related to portfolio, business development and resource allocation. The ventures team provides commercial innovation capacity that allows us to build new businesses.

Talent and capability

Inability to attract, develop and retain people with necessary skills and capabilities could negatively impact delivery of our strategy.

Our people and culture team oversees all hiring activity for bp globally, both professional hiring and early careers. They help to ensure that the right talent and people capability is in place, using local market analysis, people analytics and insights to underpin our strategic workforce planning. Talent leadership focuses on translating bp's diversity, equity and inclusion ambitions and global framework for action into a robust and diverse talent pipeline. See [page 71](#) for more information.

How we manage risk and risk factors continued

Crisis management and business continuity

Failure to address an incident effectively could potentially disrupt our business or exacerbate the legal, financial or operational impacts of the crisis event.

Incidents that could potentially disrupt our business are addressed using emergency response and business continuity plans which are mandated through company-wide policies. We use internationally recognized incident command structures and for significant events business support teams and executive support teams are established to provide oversight and management. In addition, we provide a trained cadre of crisis professionals and niche expertise for deployment across the company through our mutual response team.

Insurance

Our insurance strategy could expose the group to material uninsured losses.

Our insurance team is accountable for aligning our insurance approach with bp's strategy and engaging with the businesses, integrators and enablers to determine the appropriate level of insurance. We retain in-house expertise and partner with insurance industry leaders. Our captive insurance companies are regulated within the jurisdictions in which they operate.

Safety and operational risks

Process safety, personal safety and environmental risks

Exposure to a wide range of health, safety and environmental risks could cause harm to people, the environment and our assets and result in regulatory action, legal liability, business interruption, increased costs, damage to our reputation and potentially denial of our licence to operate.

Our Operating Management System (OMS)★ helps us manage these risks and drive performance improvements. It sets out the standards and requirements which govern key risk management activities such as inspection, maintenance, testing, business continuity and crisis response planning and competency development. In addition, we conduct our drilling activity through a wells organization in order to promote a consistent approach for designing, constructing and managing wells.

Drilling and production

Challenging operational environments and other uncertainties could impact drilling and production activities.

Our production and operations business group brings together all our hydrocarbon operations and our distinctive capabilities in one place to safely deliver competitive returns. The enablers, in particular wells and production, are accountable for safety, risk, quality and operational delivery. They execute capital and operational activity and manage associated expenditure.

Security

Hostile acts such as terrorism, activism, insider acts or piracy could harm our people and disrupt our operations. We monitor for emerging threats and vulnerabilities to manage our physical and information security.

Our intelligence, security and crisis management teams provide strategic and operational risk management to our businesses through a network of regional security managers who provide front-line risk management as well as conduct assurance activities through a team independent of the business.

We continue to monitor threats globally and maintain disaster recovery, crisis and business continuity management plans.

Product quality

Supplying customers with off-specification products could damage our reputation, lead to regulatory action and legal liability, and impact our financial performance.

bp's product quality policy is aligned with our OMS and sets requirements for our business to meet specifications and applicable legal and regulatory requirements.

Compliance and control risks

Ethical misconduct and legal or regulatory non-compliance

Ethical misconduct or breaches of applicable laws or regulations could damage our reputation, result in litigation, regulatory action and penalties, adversely affect results and shareholder value, and potentially affect our licence to operate.

Our code of conduct, the foundation of who we are, is applicable to all employees and central to managing this risk. Additionally, we have various group requirements and training covering areas such as anti-bribery and corruption, anti-money laundering, competition/anti-trust law, data privacy and international trade regulations. We offer an independent confidential helpline, OpenTalk, for employees, contractors and other third parties with the option to raise concerns anonymously.

Regulation

Changes in the law and regulation could increase costs, constrain our operations and affect our strategy, business plans and financial performance.

Our businesses, integrators and enablers all seek to identify, assess and manage legal and regulatory risks relevant to bp's operations, strategy, business plans and financial performance. To support this work, we seek to develop co-operative relationships with governmental authorities in line with our code of conduct, to allow appropriate focus on areas of potential risk or uncertainty, while also protecting bp's interests within the law.

Trading non-compliance

In the normal course of business, we are subject to risks around our trading activities which could arise from shortcomings or failures in our systems, risk management methodology, internal control processes or employee conduct.

We have specific operating standards and control processes to manage these risks, including guidelines specific to trading, and seek to monitor compliance through our dedicated compliance teams. We also seek to maintain a positive and collaborative relationship with regulators and the industry at large.

Reporting

Failure to accurately report our data could lead to regulatory action, legal liability and reputational damage.

Our accounting reporting and control team provides assurance of the control environment and is accountable for building control and compliance into finance processes and digital systems.

Risk factors

The risks discussed below, separately or in combination, could have a material adverse effect on the implementation of our strategy, our business, financial performance, results of operations, cash flow, liquidity, prospects, shareholder value and returns and reputation.

Strategic and commercial risks

Prices and markets: our financial performance is impacted by fluctuating prices of oil, gas and refined products, technological change, exchange rate fluctuations, and the general macroeconomic outlook.

Oil, gas and product prices are subject to international supply and demand and margins can be volatile.

Political developments, fluctuations to the supply of either oil and gas developments or to alternative low carbon energy sources, technological change, global economic conditions, public health situations, the introduction of new carbon costs and the influence of OPEC+ can impact supply and demand and prices for our products.

Decreases in oil, gas or product prices could have an adverse effect on revenue, margins, profitability and cash flows. If these reductions are significant or for a prolonged period, we may have to write down assets and reassess the viability of certain projects, which may impact future cash flows, profit, capital expenditure★, the ability to work within our financial frame and maintain our long-term investment programme. Conversely, an increase in oil, gas and product prices may not improve margin performance as there could be increased fiscal take, cost inflation and more onerous terms for access to resources. The profitability of our refining activities can be volatile, with periodic oversupply or supply tightness in regional markets and fluctuations in demand.

Exchange rate fluctuations can create currency exposures and impact underlying costs and revenues. Crude oil prices are generally set in US dollars, while products vary in currency. Many of our major project development costs are denominated in local currencies, which may be subject to fluctuations against the US dollar.

Accessing and progressing hydrocarbon resources and low carbon opportunities: inability to access and progress hydrocarbon resources and low carbon opportunities could adversely affect delivery of our strategy.

Delivery of our strategy depends partly on our ability to progress hydrocarbon resources from our existing portfolio and access new resources in our existing core regions. Our ability to progress upstream resources and develop technologies at a level in line with our strategic outlook for hydrocarbon production could impact our future production and financial performance. Furthermore, our ability to access low carbon opportunities and the commercial terms associated with those opportunities could impact our financial performance and the pace of our transition to an integrated energy company in line with our strategy.

Major project delivery: failure to invest in the best opportunities or deliver major projects successfully could adversely affect our financial performance.

We face challenges in developing major projects, particularly in geographically and technically challenging areas. Poor investment choice, efficiency or delivery, inflation, supply chain, or operational challenges at any major project that underpins production or production growth, could adversely affect our financial performance.

Geopolitical: exposure to a range of political developments and consequent changes to the operating and regulatory environment could cause business disruption.

We operate and may seek new opportunities in countries, regions and cities where political, economic and social transition may take place.

Political instability, changes to the regulatory environment or taxation, international trade disputes and barriers to free trade, international sanctions, expropriation or nationalization of property, civil strife, strikes, insurrections, acts of terrorism, acts of war and public health situations (including the outbreak of an epidemic or pandemic) may disrupt or curtail our operations, business activities or investments.

These may in turn cause production to decline, limit our ability to pursue new opportunities, affect the recoverability of our assets and our related earnings and cash flow or cause us to incur additional costs, particularly due to the long-term nature of many of our projects and significant capital expenditure required.

Trade restrictions, international sanctions or any other actions taken by governmental authorities or other relevant persons have had and could continue to have an impact on global energy supply and demand, market volatility and the prices of oil, gas and products.

Liquidity, financial capacity and financial, including credit, exposure: failure to work within our financial framework could impact our ability to operate and result in financial loss.

Failure to accurately forecast or work within our financial framework could impact our ability to operate and result in financial loss. Trade and other receivables, including overdue receivables, may not be recovered, divestments may not be successfully completed and a substantial and unexpected cash call or funding request could disrupt our financial framework or overwhelm our ability to meet our obligations.

An event such as a significant operational incident, legal proceedings or a geopolitical event in an area where we have significant activities, could reduce our financial liquidity and our credit ratings. Credit rating downgrades could potentially increase financing costs and limit access to financing or engagement in our trading activities on acceptable terms, which could put pressure on the group's liquidity.

They could also potentially require the company to review the funding arrangements with the bp pension trustees. In the event of extended constraints on our ability to obtain financing, we could be required to reduce capital expenditure or increase asset disposals in order to provide additional liquidity.

 **Liquidity and capital resources, page 340**
Financial statements – Note 29

Joint arrangements and contractors: varying levels of control over the standards, operations and compliance of our partners, including non-operated joint ventures (NOJV's), contractors and sub-contractors could result in legal liability and reputational damage.

How we manage risk and risk factors continued

We conduct many of our activities through joint arrangements, partners or with contractors and sub-contractors where we may have limited influence and control over the performance of such activities.

Our partners and contractors are responsible for the adequacy of their resources and capabilities. If these are found to be lacking, there may be financial, reputational, operational or safety exposures for bp. Should an incident occur in an activity that bp participates in, our partners and contractors may be unable or unwilling to fully compensate us against costs we may incur on their behalf or on behalf of the arrangement. Where we do not have operational control of a joint arrangement or direct oversight of contractor activity, we may still be pursued by regulators or claimants, and may still be the focus for interest groups or media attention in the event of an incident.

Digital infrastructure, cyber security and data protection: breach or failure of our or third parties' digital infrastructure or cyber security, including loss or misuse of sensitive information could damage our operations, increase costs and damage our reputation.

The energy industry is subject to fast-evolving risks, including ransomware, from cyber threat actors, including nation states, criminals, terrorists, hacktivists and insiders. Current geopolitical factors have increased these risks. There is also growing regulation around data protection and data privacy, critical national infrastructure and the evolving opportunities and threats from artificial intelligence. A breach or failure of our or third parties' digital infrastructure – including control systems – due to breaches of our cyber defences, or those of third parties, negligence, intentional misconduct or other reasons, could seriously disrupt our operations. This could result in the loss or misuse of data or sensitive information, including employees' and customers' personal data, injury to people, disruption to our business, harm to the environment or our assets, legal or regulatory breaches, legal liability and significant costs including fines, cost of remediation or reputational consequences. Furthermore, the rapid detection of attempts to gain unauthorized access to our digital infrastructure, often through the use of sophisticated and co-ordinated means, is a challenge and any delay or failure to detect could compound these potential harms.

 **Cyber security disclosures, page 360**

Climate change and the transition to a lower carbon economy: developments in policy, law, regulation, technology and markets, including

societal and investor sentiment, related to the issue of climate change and the transition to a lower carbon economy could increase costs, reduce revenues, constrain our operations and affect our business plans and financial performance.


Laws, regulations, policies, obligations, government actions, social attitudes and customer preferences relating to climate change and the transition to a lower carbon economy, including the pace of change to any of these factors, and also the pace of the transition itself, could have adverse impacts on our business including on our access to and realization of competitive opportunities in any of our strategic pillars, a decline in demand for, or constraints on our ability to sell certain products, constraints on production and supply, adverse litigation and regulatory or litigation outcomes, increased costs from compliance and increased provisions for environmental and legal liabilities.

Investor preferences and sentiment are influenced by environmental, social and governance (ESG) considerations including climate change and the transition to a lower carbon economy. Changes in those preferences and sentiment could affect our access to capital markets and our attractiveness to potential investors, potentially resulting in reduced access to financing, increased financing costs and impacts upon our business plans and financial performance.

Technological improvements or innovations that support the transition to a lower carbon economy, and customer preferences or regulatory incentives that alter fuel or power choices, could impact demand for oil and gas.

Depending on the nature and speed of any such changes and our response, these changes could increase costs, reduce our profitability, reduce demand for certain products, limit our access to new opportunities, require us to write down certain assets or curtail or cease certain operations, and affect investor sentiment, our access to capital markets, our competitiveness and financial performance.

Policy, legal, regulatory, technological and market developments related to climate change could also affect future price assumptions used in the assessment of recoverability of asset carrying values including goodwill, the judgement as to whether there is continued intent to develop exploration and appraisal intangible assets, the timing of decommissioning of assets and the useful economic lives of assets used for the calculation of depreciation and amortization.

 **Climate-related financial disclosures, page 55 and Financial statements – Note 1 and Note 33**

Competition: inability to remain efficient, maintain a high-quality portfolio of assets and innovate could negatively impact delivery of our strategy in a highly competitive market.

Our strategic progress and performance could be impeded if we are unable to control our development and operating costs and margins, if we fail to scale our businesses at pace, or to sustain, develop and operate a high-quality portfolio of assets efficiently. Furthermore, as we transition from an international oil company to an integrated energy company, we face an expanded and rapidly evolving range of competitors in the sectors in which we operate.

We could be adversely affected if competitors offer superior terms for access rights or licences, or if our innovation in areas such as new low carbon technologies, digital, customer offer, exploration, production, refining, manufacturing or renewable energy lags behind those of our competitors. Our performance could also be negatively impacted if we fail to protect our intellectual property.

Talent and capability: inability to attract, develop and retain people with necessary skills and capabilities could negatively impact delivery of our strategy.

The sectors in which we operate face increasing challenges to attract and retain diverse, skilled and capable talent. An inability to successfully recruit, develop and retain core skills and capabilities and to reskill existing talent could negatively impact delivery of our strategy.

Crisis management and business continuity: failure to address an incident effectively could potentially disrupt our business.

Our reputation and business activities could be negatively impacted if we do not respond, or are perceived not to respond, in an appropriate manner to any major crisis.

Insurance: our insurance strategy could expose the group to material uninsured losses.

bp insures in situations where this is legally and contractually required. Some risks are insured with third parties and reinsured by group insurance companies. Uninsured losses could have a material adverse effect on our financial position, particularly if they arise at a time when we are facing material costs as a result of a significant operational event which could put pressure on our liquidity and cash flows.

Safety and operational risks

Process safety, personal safety, and environmental risks: exposure to a wide range of health, safety and environmental risks could cause harm to people, the environment and our assets and result in regulatory action, legal liability, business interruption, increased costs, damage to our reputation and potentially denial of our licence to operate.

Technical integrity failure, natural disasters, extreme weather or a change in its frequency or severity, human error and other adverse events or conditions, including breach of digital security, could lead to loss of containment of hazardous materials, including hydrocarbons★. This could also lead to fires, explosions or other personal and process safety incidents when drilling wells, constructing and operating facilities; in addition to activities associated with transportation by road, sea or pipeline. There can be no certainty that our OMS or other policies and procedures will adequately identify all process safety, personal safety and environmental risks or that all our operating activities, including acquired businesses, will be conducted in conformance with these systems.

Safety, page 69

Such events or conditions or inability to provide safe environments for our workforce and the public while at our facilities, premises or during transportation, could lead to injuries, loss of life or environmental damage. As a result, we could face regulatory action and legal liability, including penalties and remediation obligations, increased costs and potentially denial of our licence to operate. Our activities are sometimes conducted in hazardous, remote or environmentally sensitive locations, where the consequences of such events or conditions could be greater than in other locations.

Drilling and production: challenging operational environments and other uncertainties could impact drilling and production activities.

Our activities require high levels of investment and are sometimes conducted in challenging environments such as those prone to natural disasters and extreme weather, which heightens the risks of technical integrity failure. The physical characteristics of an oil or natural gas field, and cost of drilling, completing or operating wells are often uncertain. We may be required to curtail, delay or cancel drilling operations or stop production because of a variety of factors, including unexpected drilling conditions, pressure or irregularities in geological formations, equipment failures or accidents, adverse weather conditions and compliance with governmental requirements.

Security: hostile acts against our employees and activities could cause harm to people and disrupt our operations.

Acts of terrorism, piracy, sabotage, activism and similar activities directed against our operations and facilities, pipelines, transportation or digital infrastructure could cause harm to people and severely disrupt operations. Our activities could also be severely affected by conflict, civil strife or political unrest.

Product quality: supplying customers with off-specification products could damage our reputation, lead to regulatory action and legal liability, and impact our financial performance.

Failure to meet product quality specifications could cause harm to people and the environment, damage our reputation, result in regulatory action and legal liability, and impact financial performance.

Compliance and control risks

Ethical misconduct and non-compliance: ethical misconduct or breaches of applicable laws by our businesses or our employees could be damaging to our reputation, and could result in litigation, regulatory action and penalties.

Incidents of ethical misconduct or non-compliance with applicable laws and regulations, including anti-bribery and corruption, competition and antitrust, data privacy, and anti-fraud laws, trade restrictions or other sanctions, could damage our reputation, and result in litigation, regulatory action, penalties and potentially affect our licence to operate. In relation to trade restrictions or other sanctions, current geopolitical factors have increased these risks.

Regulation: changes in the law and regulation could increase costs, constrain our operations and affect our strategy, business plans and financial performance.

Our businesses and operations are subject to the laws and regulations applicable in each country, state or other regional or local area in which they occur. These laws and regulations result in an often complex, uncertain and changing legal and regulatory environment for our global businesses and operations. Changes in laws or regulations, including how they are interpreted and enforced, can and do impact all aspects of our business.

Royalties and taxes, particularly those applied to our hydrocarbon activities, tend to be high compared with those imposed on similar commercial activities. In certain jurisdictions there is also a degree of uncertainty relating to tax law interpretation and changes.

Governments may change their fiscal and regulatory frameworks in response to public pressure on finances or for other policy reasons, resulting in increased amounts payable to them or their agencies.

Changes in law or regulation could increase the compliance and litigation risk and costs, reduce our profitability, reduce demand for or constrain our ability to sell certain products, limit our access to new opportunities, require us to divest or write down certain assets or curtail or cease certain operations, or affect the adequacy of our provisions for pensions, tax, decommissioning, environmental and legal liabilities. Changes in laws or regulations could result in the nationalization, expropriation, cancellation, non-renewal or renegotiation of our interests, assets and related rights. Potential changes to pension or financial market regulation could also impact funding requirements of the group. Following the Gulf of Mexico oil spill, we may be subjected to a higher level of fines or penalties imposed in relation to any alleged breaches of laws or regulations, which could result in increased costs.

Regulation of the group's business, pages 353-357

Trading and treasury trading activities: ineffective oversight of trading and treasury trading activities could lead to business disruption, financial loss, regulatory intervention or damage to our reputation and affect our permissions to trade.

We are subject to operational risk around our trading and treasury trading activities in financial and commodity markets, some of which are regulated. Failure to process, manage and monitor a large number of complex transactions across many markets and currencies while complying with all regulatory requirements could hinder profitable trading opportunities. There is a risk that a single trader or a group of traders could act outside of our delegations and controls, leading to regulatory intervention and resulting in financial loss, fines and potentially damaging our reputation, and could affect our permissions to trade.

Financial statements – Note 29

Reporting: failure to accurately report our data could lead to regulatory action, legal liability and reputational damage.

External reporting of financial and non-financial data, including reserves estimates, relies on the integrity of the control environment, our systems and people operating them. Failure to report data accurately and in compliance with applicable standards could result in regulatory action, legal liability and damage to our reputation.

Compliance information

bp non-financial and sustainability information statement

Produced in compliance with Sections 414CA and 414CB of the Companies Act. Information incorporated by cross reference.

Requirement	Relevant policies and standards	Information related to policies and any due diligence processes
a Environmental matters	<ul style="list-style-type: none"> Net zero aims TCFD Sustainability frame Biodiversity position (online) 	<ul style="list-style-type: none"> Climate-related financial disclosures – pages 55-68 Caring for our planet aims – page 54 Our Operating Management System (OMS) – page 69 Decision making by the board – page 89
b Employees	<ul style="list-style-type: none"> Reinvent bp guidelines bp values and code of conduct (online) 	<ul style="list-style-type: none"> Our people – page 70 Safety – page 69 Our values ('Who we are') and code of conduct – page 72 Employee engagement ('Pulse annual' employee survey) – page 71 How the board engaged with stakeholders (workforce) – page 92
c Social matters	<ul style="list-style-type: none"> Sustainability frame 	<ul style="list-style-type: none"> Our Operating Management System (OMS) – page 69 Improving people's lives – page 53 Decision making by the board – page 89
d Respect for human rights	<ul style="list-style-type: none"> Business and human rights policy (online) Modern slavery statement (online) Labour rights and modern slavery principles (online) Code of conduct (online) 	<ul style="list-style-type: none"> Improving people's lives – page 53 Human rights – page 53 Our values and code of conduct – page 72
e Anti-corruption and anti-bribery	<ul style="list-style-type: none"> Anti-bribery and corruption policy Code of conduct (online) 	<ul style="list-style-type: none"> Ethics and compliance – page 72 Our partners in joint arrangements – page 70
Description of principal risks relating to matters (a-e above)		<ul style="list-style-type: none"> How we manage risk – pages 73-76 Risk factors – pages 77-79 TCFD (climate-related risk management) – page 58
Relevant information		
Business model description	<ul style="list-style-type: none"> Business model – pages 16-17 	
Description of non-financial KPIs	<ul style="list-style-type: none"> Measuring our progress – pages 24, 26-27 	

TCFD index table^a


Our TCFD disclosures can be found on the following pages.

TCFD Recommendation	TCFD Recommended Disclosure	Where reported
Governance Disclose the organization's governance around climate-related issues and opportunities.	a Describe the board's oversight of climate-related risks and opportunities.	<ul style="list-style-type: none"> Pages 55-56
	b Describe the management's role in assessing and managing climate-related risks and opportunities.	<ul style="list-style-type: none"> Pages 56-58
Strategy Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's business, strategy and financial planning where such information is material.	a Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	<ul style="list-style-type: none"> Pursuing a strategy that is consistent with the Paris goals, page 14 Strategy, page 12 Risk factors, page 77
	b Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	<ul style="list-style-type: none"> Risk factors, page 77 – description of principal risks Strategy, page 12
	c Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	<ul style="list-style-type: none"> Strategy, page 12 Pursuing a strategy that is consistent with the Paris goals, page 14
Risk management Disclose how the organization identifies, assesses and manages climate-related risks.	a Describe the organization's processes for identifying and assessing climate-related risks.	<ul style="list-style-type: none"> Risk management, page 58 How we manage risk, page 73 Risk factors, page 77
	b Describe the organization's processes for managing climate-related risks.	<ul style="list-style-type: none"> Risk management, page 58 How we manage risk, page 73
	c Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	<ul style="list-style-type: none"> Risk management, page 58 How we manage risk, page 73 Risk factors – page 77
Metrics and targets Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.	a Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.	<ul style="list-style-type: none"> Our strategic pillars and metrics, page 13 Our group-wide principal metrics and relevant targets, page 68
	b Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 GHG emissions, and the related risks.	<ul style="list-style-type: none"> GHG emissions data, page 51
	c Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.	<ul style="list-style-type: none"> Our net zero targets and aims at a glance, pages 48-49

^a We consider the information in our TCFD disclosures, taken together with our climate-related non-financial KPIs on [pages 26-27](#) of this report, to be compliant with the disclosure requirements of Section 414CB of the Companies Act, as amended by the UK CFD Regulations.

Section 172 statement

In accordance with the requirements of Section 172 of the Companies Act 2006 (the Act), the directors consider that, during the financial year ended 31 December 2023, they have acted in a way that they consider, in good faith, would most likely promote the success of the company for the benefit of its members as a whole, having regard to the likely consequences of any decision in the long term and the broader interests of other stakeholders, as required by the Act.

 For more information in support of this statement, see decision making by the board, [page 89](#), board activities, [page 90-91](#) and our stakeholders, [page 92-93](#)

The Strategic report was approved by the board and signed on its behalf by Ben J.S. Mathews, company secretary, on 8 March 2024.