



# Net Zero Ambition




## Progress Update

March 2024


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## About this report

This report is an update on progress against our net zero  ambition. Our ambition, which is to become a net zero company by 2050 and to help the world get there too, remains unchanged. We are aiming for net zero across our operations, production and sales, by 2050 or sooner.

The report includes a reminder of why we believe our ambition is consistent with the Paris goals and our planned actions this decade. We chose to focus on our activity up to 2030 as the actions we are taking now will help set the foundations for achieving net zero after that, by 2050 or sooner and for our efforts to help the world reach net zero.

We have updated our progress to date to take account of our performance in 2023 and reflect the updates to some of our aims announced in February 2023.

This progress update complements information provided in our 4Q/full year 2023 results and update on strategic progress, the *bp Annual Report 2023* and other materials on our strategy, financial frame, investor proposition, sustainability report and sustainability frame, available at [bp.com](https://www.bp.com).

## Links to other information

-  [bp.com/investors](https://www.bp.com/investors)
  - [4Q 2023 results](#) (script and slides)
  - [bp Annual Report 2023](#)
-  [bp.com/TCFD](https://www.bp.com/TCFD)
-  [bp.com/sustainability](https://www.bp.com/sustainability)
-  [bp.com/ESGdata](https://www.bp.com/ESGdata)
-  All of our reports and data are available at: [bp.com/reportingcentre](https://www.bp.com/reportingcentre)

# Introduction from our chief executive officer

Our destination is unchanged: we want to be a net zero company by 2050 or sooner and help the world get to net zero too.



// We are well positioned to grow the value of bp as we transition to an integrated energy company. //

**Murray Auchincloss**  
Chief executive officer

★ See the glossary on [pages 33-35](#)

## Destination unchanged

In 2020 we set out a strategy: to transform bp from an international oil company to an integrated energy company, one that meets the needs of today's energy system with increasingly lower emissions while helping to build out tomorrow's.

We also set the ambition to be a net zero★ company by 2050 or sooner and to help the rest of world get to net zero. Over the past four years we've made real progress and learned a lot. I am confident that we can translate those learnings and progress into delivery and value going forward. Importantly, our net zero ambition is backed by our shareholders, employees and board. And the board remains firmly of the view that bp's strategy is consistent with the Paris climate goals.

This report reaffirms our ambition and provides an update on our progress.

## Disciplined progress

As you will see in this update, the 2023 figures show that we have reduced our operational emissions by 41% since 2019. Progress in 2023 was flat compared to 2022, which is not unexpected and reflects ongoing emission reductions measures being offset by factors including the start-up of new projects. We remain ahead of our 2025 target and continue to lay the groundwork for sustained decarbonization.

In 2023 this included Cherry Point and Whiting refineries signing low carbon power purchase agreements, further electrification at bpx energy and Tangguh LNG plant adding a steam heat recovery system.

As planned, we also completed the deployment of our methane measurement approach – a combination of technology, modelling and solutions – across bp's operated upstream★ oil and gas assets. These actions described in more detail on [page 16](#). This was a significant technical achievement and it will give us more and better data to help us keep our methane intensity★ down. bp has outstanding science, technology and engineering capabilities and we want to build and strengthen these as we continue our decarbonization journey.

We are also aiming for net zero across the energy products★ we sell. Progress here is closely linked to the growth of our new, lower carbon energy businesses. We are now moving from the learning and option generating phase to focused delivery, targeting opportunities where our scale and ability to integrate give bp a competitive edge. In 2023, for example, we grew our biofuels production★ by 18%, biogas supply volumes★ by 80%, and the number of *bp pulse* EV charge points★ by over a third. We also continued to expand our renewables and hydrogen project pipelines. All of these lower carbon energy businesses are designed help the world get to net zero while growing the value of bp.

## Driving delivery

The energy transition is complex and bp's progress will not be linear across all measures. Our strategy gives us the ability to adapt to changing demand and societal need. We will continue to be flexible and pragmatic as we navigate the energy transition within our disciplined financial frame.

bp is a great company, with great people. We are well positioned to grow the value of bp as we transition to an integrated energy company. We cannot transition without the backing of our shareholders though, so thank you again for your support. I hope you find this update useful and I look forward to your feedback.

**Murray Auchincloss**  
Chief executive officer  
March 2024



# Our net zero ambition

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Cherry Point refinery, Washington, US



# The scenarios which inform our net zero ambition

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 *bp Energy Outlook 2023* uses three main scenarios (New momentum, Net Zero and Accelerated) to explore the range of possible pathways for the global energy system to 2050. The scenarios 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.

## Updates to 2023 Energy Outlook

In January 2023 we published the *bp Energy Outlook 2023*<sup>a</sup>. 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 a new 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.

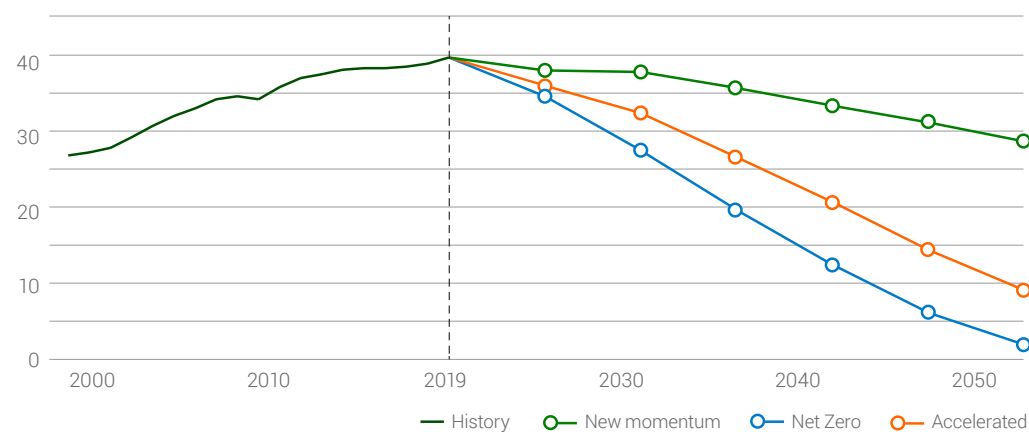
## How scenarios inform our strategy

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. 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 monitor changes in the external environment, and refresh or review the scenarios as needed in response to these signals, as we have done with the Russia-Ukraine war and the Inflation Reduction Act.

## Global carbon emissions<sup>b</sup>

Gt of CO<sub>2</sub>e



### New momentum

Captures the broad trajectory of the current global energy system. 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. CO<sub>2</sub>-equivalent (CO<sub>2</sub>e) emissions from energy and industrial process peak in the 2020s and by 2050 are around 30% below 2019 levels. This scenario is not considered to be a Paris-consistent pathway.

### Net zero

This scenario represents a shift in societal behaviour and preferences which supports gains in energy efficiency and the adoption of low carbon energy, with global energy system CO<sub>2</sub> emissions falling by around 95%, relative to 2019 levels. This scenario is considered consistent with Paris, broadly aligning with pathways maintaining global temperature rises below 1.5°C.

### Accelerated

Explores what elements of the energy system might need to change if the world collectively takes action for CO<sub>2</sub>-equivalent emissions (CO<sub>2</sub>e) to fall by around 75% by 2050, relative to 2019 levels. This scenario is considered consistent with Paris, broadly aligning with well-below-2°C pathways.

 Read more at [bp.com/energyoutlook](https://www.bp.com/energyoutlook)

<sup>a</sup> Analysis contained in the *bp Energy Outlook 2023* should be treated as subject to change, depending on future developments.

<sup>b</sup> Carbon emissions include CO<sub>2</sub> emissions from energy use, industrial processes, natural gas flaring and methane emissions from energy production.

## Testing resilience of our strategy

In keeping with others, such as the IPCC and International Energy Agency, we believe that there are a range of global pathways to achieve the Paris goals, with differing implications for regions, industries and sectors, so business strategies need to be resilient to this uncertainty.

We have conducted an analysis to test our strategic resilience to different climate-related scenarios, using the WBCSD (World Business Council for Sustainable Development) Scenario Reference Catalogue, which was developed at the request of the TCFD (Task Force on Climate-related Financial Disclosures)<sup>a</sup>.

Our approach to this scenario analysis and resilience test, and our key insights from them, are discussed in our TCFD Strategy disclosures in the *bp Annual Report 2023*. Overall, while the results of any such analysis must be treated with caution, 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 highlighted again 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.

[Read more on how we conducted our scenario analysis and resilience test, in the \*bp Annual Report 2023\* pages 55-68](#)



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.

London Heathrow airport, UK

<sup>a</sup> 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.

# Our *net zero* ambition and aims

We have five aims to get bp to net zero alongside five aims to help the world get to net zero.

1

## Net zero operations★

Net zero across our entire operations by 2050 or sooner.

 [page 10](#)

2

## Net zero production★

Net zero across the carbon in our upstream oil and gas production by 2050 or sooner.

 [page 12](#)

3

## Net zero sales★

Net zero across the energy products★ we sell by 2050 or sooner.

 [page 13](#)

4

## Reducing methane

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.

 [page 16](#)

5

## More \$ into transition

Increase the proportion of investment we make into our non-oil and gas businesses.

 [page 18](#)

6

## Advocating

More actively advocate for policies that support net zero, including carbon pricing.

 [page 22](#)

7

## Incentivizing employees

Incentivize our global workforce to deliver on our aims and mobilize them to become advocates for net zero.

 [page 23](#)

8

## Aligning associations

Set new expectations for our relationships with trade associations around the globe.

 [page 24](#)

9

## Transparency leader

To be recognized as an industry leader for the transparency of our reporting.

 [page 25](#)

10

## Clean cities and corporates

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

 [page 26](#)

★ See the glossary on [pages 33-35](#)

# Consistency of our ambition and aims with the Paris goals

In a world heading for net zero, we believe bp is best positioned for success if we also head for net zero – working to build and participate in net zero value chains, using our capabilities to integrate along and across them, and decarbonizing our own operations.

We believe that our net zero ambition and aims, taken together, set out a path for bp that is consistent with the goals of the Paris Agreement.

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 our ambition and our 10 net zero aims need to be considered as a package for consistency with the Paris goals. This is because they combine to set bp's direction for net zero, supporting society's drive towards the Paris goals and enabling bp to succeed in a Paris-consistent world.

 [Read more about consistency with Paris in the \*\*bp Annual Report 2023\*\* pages 14-15](#)

★ See the glossary on [pages 33-35](#)

## Our view of Paris consistency continues to be based on three key principles:

### 1 Informed by Paris-consistent energy transition scenarios

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 during 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 scenarios) – which we use along with other sources to inform our strategy. See [page 3](#).

### 2 Positioned for 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.

Our 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 under review in light of new information and changes in circumstances.

 [Read more on our climate-related financial disclosures in the \*\*bp Annual Report 2023\*\* pages 55-68](#)

### 3 Contributes to net zero

We believe our strategy enables us to make a positive contribution to the world achieving net zero GHG emissions and meeting the Paris goals – outcomes we believe to be in our best interests 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.

In addition to investing in and scaling our own lower carbon businesses 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. These include: policy advocacy and seeking to use our 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. We seek to advance these areas through our aims 1-5 in support of our ambition to be a net zero company by 2050, or sooner, and aims 6-10 which are focused on activities that can help the world get to net zero. See [page 7](#) and [page 20](#).



# Getting bp to *net zero*

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Impact Solar project in Lamar County, Texas, US



# Net zero operations, production and sales – overview

Aim 1

## Net zero operations



Scope 1 + 2 emissions

### Possible actions



Operational efficiency



CCS



Portfolio optimization

### Interim targets and aims Absolute

2025 target

20%

2030 aim

50%

### Progress to date

2019 baseline

54.5  
MtCO<sub>2e</sub>

2023

41%  
Reduction

Aim 2

## Net zero production



Scope 3 emissions

### Possible actions



CCS



Portfolio optimization

### Interim targets and aims Absolute

2025 target

10-15%

2030 aim

20-30%

### Progress to date

2019 baseline

361  
MtCO<sub>2</sub>

2023

13%  
Reduction

Aim 3

## Net zero sales



Average lifecycle carbon intensity

### Possible actions



Bioenergy



EV charging



Renewables



Electricity sales

### Interim targets and aims Intensity

2025 target

5%

2030 aim

15-20%

### Progress to date

2019 baseline

79  
gCO<sub>2e</sub>/MJ

2023

3%  
Reduction

# Net zero aims 1-5 update

Five aims to get bp to net zero – progress summary

Aims	Measure/coverage	2019	2023 update	2025 targets	2030 aims	Aims for 2050 or sooner
Aim 1 <i>Net zero operations</i> ★	Scope 1+2	Baseline 54.5 <sup>a</sup> MtCO <sub>2</sub> e	41% <sup>b</sup> cumulative reduction in emissions against 2019 baseline	20% <sup>b</sup>	50% <sup>b</sup>	Net zero★
Aim 2 <i>Net zero production</i> ★	Scope 3	Baseline 361 MtCO <sub>2</sub>	13% <sup>b</sup> cumulative reduction in emissions against 2019 baseline	10-15% <sup>b</sup> 20%	20-30% <sup>b</sup>	Net zero★
Aim 3 <i>Net zero sales</i> ★	Average lifecycle carbon intensity <sup>c</sup>	Baseline 79 <sup>d</sup> gCO <sub>2</sub> e/MJ	3% <sup>d,e</sup> cumulative reduction in carbon intensity against 2019 baseline	5% <sup>e</sup>	15-20% <sup>e</sup>	Net zero★
Aim 4 <i>Reducing methane</i>	Methane intensity★	0.14% <sup>f</sup>	0.05% <sup>f</sup>	0.20% <sup>g</sup>	50% <sup>h</sup> reduction	
Aim 5 <i>More \$ into transition</i>	Transition growth investment★	\$634m	\$3.8bn	\$6-8bn	\$7-9bn	

a Changed from 54.4MtCO<sub>2</sub>e for consistency in rounding.

b Reduction in absolute emissions against the 2019 baseline.

c Average carbon intensity of our sold energy products★.

d 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. The restatement does not alter the previously disclosed average lifecycle carbon intensity of our sold energy products. Read more on page 15.

e 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.

f The methane intensity for these years 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.

g The 0.20% methane intensity target is based on our new measurement approach. Methane intensity is currently calculated using our existing methodology.

h The 50% reduction we are aiming for is against a new baseline which we plan to set based on the new measurement approach.

★ See the glossary on [pages 33-35](#)



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1

# Net zero operations★

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

This aim relates to our Scope 1 (from running the assets within our operational control boundary) and Scope 2 (associated with producing the electricity, heating and cooling that is bought in to run those operations) GHG emissions. These emissions were 54.5MtCO<sub>2</sub>e in 2019<sup>a</sup>. We are targeting a 20% reduction in our aim 1 operational emissions by 2025 and will aim for a 50% reduction by 2030 against our 2019 baseline.

### Progress and targets

Reduction in emissions against the 2019 baseline (absolute basis).

16%	2020 performance
35%	2021 performance
41%	2022 performance
41%	2023 performance
20%	2025 target
50%	2030 aim
Net zero	2050 or sooner

## Our actions

### Operational efficiency

We are implementing energy efficiency measures, electrifying our centralized facilities, reducing flaring and venting, and managing methane across our operations. Emissions reduction activities may include process optimization, steam heat recovery and powering refineries and onshore upstream assets using power with lower carbon attributes, as we are already doing at several of our European and US refineries.

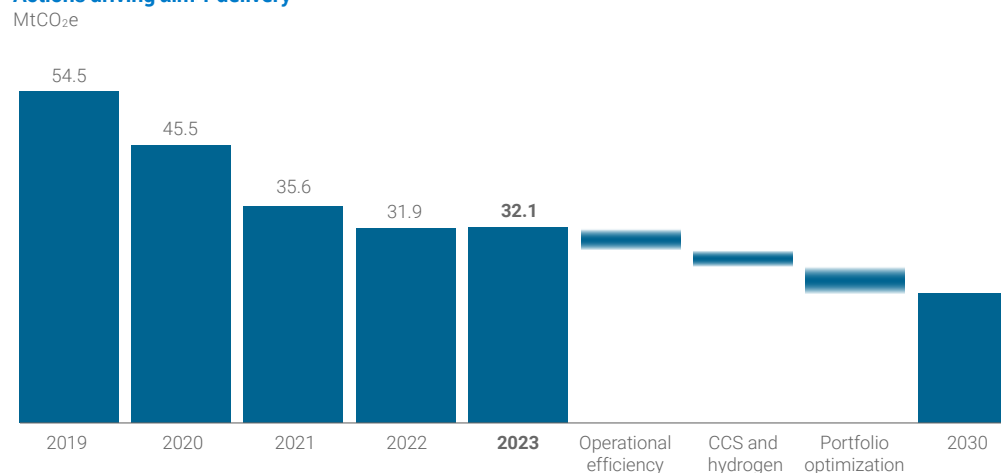
### Carbon capture and storage (CCS) and hydrogen

Where conditions are suitable, extraction of carbon dioxide from produced gas streams and reinjection underground can serve to reduce overall operational emissions. We believe this could be the case at our Tangguh LNG facility in Indonesia, where we are continuing work on the Tangguh Enhanced Gas Recovery and CCS scheme, designed to inject carbon dioxide back into the reservoir. We also plan to increase the use of blue and green hydrogen★ at our refineries, reducing the emissions associated with the use of natural gas and grey hydrogen.

### Portfolio optimization

As we high-grade our portfolio and focus on our most resilient assets, we expect emissions from our operations to reduce over time.

### Actions driving aim 1 delivery<sup>b</sup>



### Our position on divestments

The *bp Sustainability Report 2021* described our approach to divestment activities, which remains unchanged, and how divestments – which continue to be an important part of our strategy – contribute to our aims 1, 2 and 3.

Read more in the *bp Sustainability Report 2021*: [bp.com/reportingcentre](https://www.bp.com/reportingcentre)

## Our progress in 2023

We continued our efforts to drive a reduction in our operational emissions, although compared with 2022 (31.9MtCO<sub>2</sub>e), Scope 1 and 2 emissions remained broadly flat.

Our combined Scope 1 and 2 emissions, covered by aim 1 were 32.1MtCO<sub>2</sub>e – a decrease of 41% from our 2019 baseline of 54.5MtCO<sub>2</sub>e<sup>c</sup>. The total decrease includes 17.9MtCO<sub>2</sub>e attributable to divestments and 5.0 MtCO<sub>2</sub>e in sustainable emission reductions (SERs)★.

We have already exceeded our 2025 target of 20% emission reductions against our 2019 baseline. New projects are coming online, adding to the challenge of reducing our operational emissions and continued investment will be needed to meet our 2030 aim. SERs have been a focus for us, allowing us to apply our skills to emissions reductions and we intend to maintain that focus.

<sup>a</sup> Changed from 54.4MtCO<sub>2</sub>e for consistency in rounding.

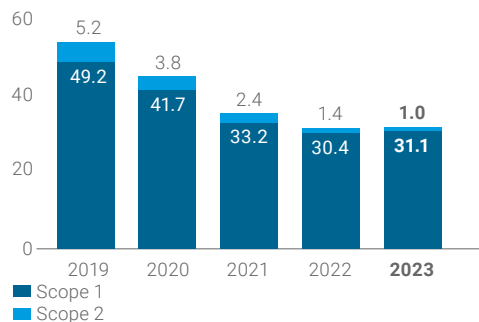
<sup>b</sup> This chart is intended to be illustrative of a range of contributions that individual aspects of our plans may make relative to others. They should not be taken to represent specific expectations of actual impacts of actions driving delivery.

<sup>c</sup> Scope 2 emissions on a market basis.

★ See the glossary on [pages 33-35](#)



### Scope 1 (direct) and Scope 2 (indirect) GHG emissions (operational control boundary)<sup>b,c,d,e</sup> (MtCO<sub>2</sub>e)



In 2023 our Scope 1 (direct) emissions, covered by aim 1, were 31.1MtCO<sub>2</sub>e – an overall increase from 30.4MtCO<sub>2</sub>e in 2022. Of these Scope 1 emissions, 30.2MtCO<sub>2</sub>e were carbon dioxide and 1.0MtCO<sub>2</sub>e methane<sup>a</sup>. Overall emissions increased due to temporary operational changes, project start-ups and growth, which were partially offset by delivery of SERs and divestments.

Scope 2 (indirect) emissions, covered by aim 1, decreased by 0.4MtCO<sub>2</sub>e, to 1.0MtCO<sub>2</sub>e, compared with 2022<sup>b</sup>. Lower carbon power agreements, including those at our Cherry Point and Whiting refineries, contributed to this decrease.

Overall, key factors affecting our Scope 1 and 2 emissions in 2023 included:

- The Archaea Energy and TravelCenters of America acquisitions increased Scope 1 and 2 emissions by 0.4MtCO<sub>2</sub>e.
- Divestments reduced Scope 1 and 2 emissions by 1.9MtCO<sub>2</sub>e.
- Delivery of SERs reduced Scope 1 and 2 emissions by 0.9MtCO<sub>2</sub>e.
- Other permanent increases of 1.2MtCO<sub>2</sub>e include projects that came online in 2023, for example Tangguh Train 3, Mad Dog phase 2, bpx energy production increases, and Seagull North Sea start-up.
- Total temporary production-related changes accounted for an increase of 1.3MtCO<sub>2</sub>e.
- Total hydrocarbons flared increased from 654kt to 861kt primarily due to operational flaring issues in the Azerbaijan-Georgia-Türkiye region and Tangguh Train 3 start-up.

SERs from our businesses and activities included:

- Cherry Point and Whiting refineries reduced Scope 2 emissions from purchased electricity by 255ktCO<sub>2</sub>e through lower carbon power agreements.
- Oman operations and wells teams achieved combined operational emissions reductions of 77ktCO<sub>2</sub>e through a number of interventions including flaring optimization and improved operational efficiency.
- The expansion of bpx energy's network of centralization facilities reduced operational emissions by 149ktCO<sub>2</sub>e. The Bingo facility came online in August 2023.

### bp equity share emissions

While our aim 1 relates to the assets within our operational boundary, we report our operational (Scope 1 and 2) GHG emissions in our ESG datasheet, with reference to two boundaries – operational control and bp equity share. Operational control boundary covers bp-operated assets<sup>c</sup>. bp equity share covers 100% of emissions from subsidiaries and the percentage of emissions equivalent to our share of joint arrangements and associates<sup>f</sup>. Our aggregate Scope 1 and 2 emissions increased on an equity share basis, compared with 2022.

 [bp.com/ESGdata](https://bp.com/ESGdata)

<sup>a</sup> Due to rounding some totals may not equal the sum of their component parts. This does not affect the underlying values.

<sup>b</sup> Scope 2 emissions on a market basis.

<sup>c</sup> Operational control data comprises 100% of emissions from activities operated by bp, going beyond the Ipeca guidelines by including emissions from certain other activities such as contracted drilling activities. See [bp.com/basisofreporting](https://bp.com/basisofreporting).

<sup>d</sup> Due to rounding some totals may not equal the sum of their component parts. This does not affect the underlying values.

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

<sup>f</sup> bp equity share data comprises 100% of emissions from subsidiaries and the percentage of emissions equivalent to our share of joint arrangements and associates, other than bp's share of 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.

2

## Net zero production★

Our 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 is based on bp's net share of production<sup>a</sup> (around 361MtCO<sub>2</sub> in 2019). It is associated with the CO<sub>2</sub> 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.

### Progress and targets

Reduction in emissions against the 2019 baseline (absolute basis).

9%	2020 performance
16%	2021 performance
15%	2022 performance
13%	2023 performance
10-15%	2025 target
20-30%	2030 aim
Net zero	2050 or sooner

## Our actions

### Portfolio optimization

Becoming net zero on an absolute basis across the carbon in our upstream oil and gas production is partly linked to reducing that production.

We have stated that we are aiming for a reduction in oil and gas production by around 25% by 2030, compared to 2019<sup>a</sup>.

This aim takes account of anticipated base decline of existing fields, new projects coming online and the ongoing strategic high-grading of our portfolio – which we are designing to be operationally and economically robust, and resilient to unplanned or unexpected factors such as price volatility and geopolitical risk.

Our exploration capital expenditure★ has declined from a peak of \$4.6 billion in 2010, to around \$600 million in 2023.

## Our progress in 2023

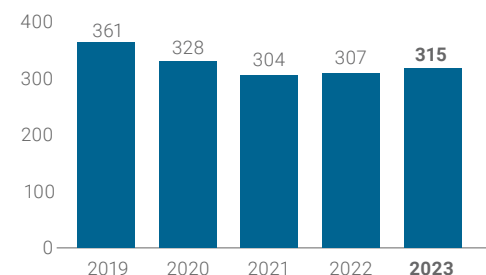
Since 2019 our estimated Scope 3 emissions covered by aim 2 have reduced by 13%, which is around the mid-range of our 2025 target of a 10-15% reduction against our 2019 baseline.

Our plans and forward path for emissions covered by aim 2 will take into account growth in underlying production due to operational improvements and major project start-ups and deferred divestments.

The estimated Scope 3 emissions from the carbon in our upstream oil and gas production were 315MtCO<sub>2</sub> in 2023 – a slight increase from 307MtCO<sub>2</sub> in 2022, mainly associated with an increase in underlying production due to the ramp-up of major projects and higher asset performance.

### Estimated emissions from the carbon in our upstream oil and gas production

(MtCO<sub>2</sub>)



### Estimated emissions from the carbon in our upstream oil and gas production by product

(MtCO<sub>2</sub>)

	2019 baseline	2020	2021	2022	2023 performance
Total	361	328	304	307	315
Oil	185	177	157	152	158
Gas	165	140	138	145	146
NGL	11	11	9	10	11

<sup>a</sup> 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.

★ See the glossary on [pages 33-35](#)



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# Net zero sales★

**Our aim 3 is to reduce to net zero the carbon intensity of the energy products★ we sell by 2050 or sooner.**

This aim applies to the average carbon intensity of the energy products we sell. 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.

### Progress and targets

Reduction in the carbon intensity of our sold energy products★ against the 2019 baseline.

2%	2020 performance
1%	2021 performance
2%	2022 performance
3%	2023 performance
5%	2025 target
15-20%	2030 aim
<b>Net zero<sup>a</sup></b>	<b>2050 or sooner</b>

## Our actions

Progress on our aim 3 is directly linked to our strategy to grow our low carbon businesses and provide products that have lower lifecycle emissions. We anticipate that this change in our sales portfolio will be supported by the continued evolution of the market.

We are aiming to increase our capital investment in our transition growth★ engines, which include low carbon activity★. Our aim 5 is to increase the proportion of investment in non-oil and gas. Read more about our aim 5 on [page 18](#).

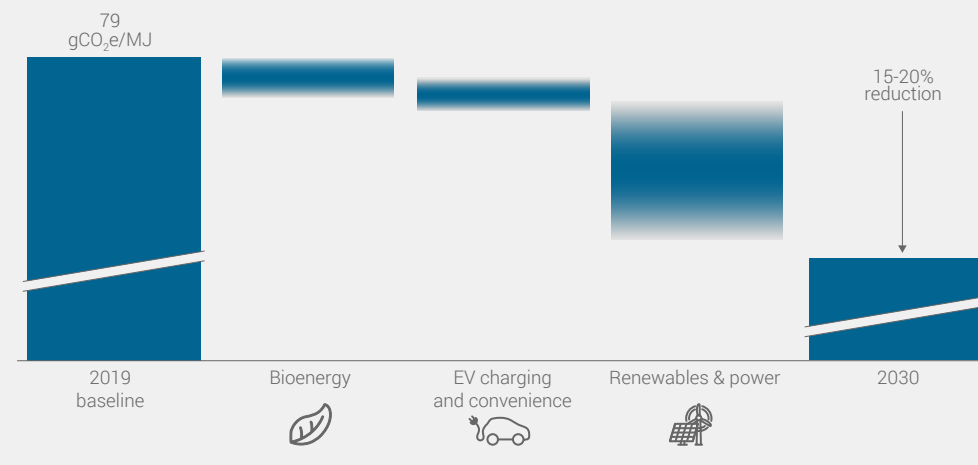
### Our strategic themes

We expect the implementation of our strategy across our three strategic pillars – resilient hydrocarbons, convenience and mobility, and low carbon energy – to support delivery of our aim 3 up to and beyond 2030.

In charting our aim 3 path, we recognize that significant aim 3 benefits arise over the longer term – for example, as offshore wind projects that we are working on through this decade come into operation after 2030; or as utilization rates for EV charge points★ increase in later years as EV uptake grows. The same is true of our current investment in convenience and retail platforms with a longer-term aspiration to introduce lower carbon transport offers as our customers’ energy needs evolve.

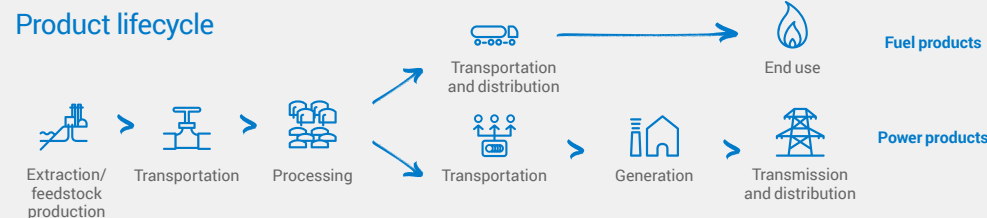
### Actions driving aim 3 delivery<sup>b</sup>

For aim 3, reducing the average carbon intensity of sold energy products is driven by our efforts to decarbonize the products we sell today and investments in EV charging, bioenergy, renewables and power as well as the transition of our energy product trading mix in line with the decarbonization of our activities and global energy over time.



### Full value chain emissions for energy products

Aim 3 is estimated on a lifecycle basis covering the full value chain of well-to-wheel or well-to-wire emissions associated with the energy products we sell.



<sup>a</sup> At the point of net zero, our net zero carbon intensity aim 3 also means we will be net zero on an absolute basis.

<sup>b</sup> This chart is intended to be illustrative of a range of contributions that individual aspects of our plans may make relative to others. They should not be taken to represent specific expectations of actual impacts of actions driving delivery.

★ See the glossary on [pages 33-35](#)

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Examples of actions to advance aim 3 across our three strategic pillars include:

### Resilient hydrocarbons

We are in action to grow our bioenergy businesses. By 2025 we aim to grow our biofuels production★ to around 50kb/d and our biogas supply volumes★ to around 40mboe/d. Our refinery operations are in regions where we expect to see strong growth in bioenergy demand, and our manufacturing processes are well positioned to adapt to this.

 [Read more about bioenergy on page 18](#)












### Convenience and mobility

EV charging is growing at pace and we see significant value arising through our focus on fast★ charging for on-the-go customers. The majority of charge points we roll out globally are rapid★ or ultra-fast★ and we aim to grow our global network and increase our energy sales.

### Low carbon energy

When we see strategic value in doing so, we intend to integrate our electricity generation positions with a growing commercial and industrial customer portfolio and aim to significantly increase our electricity trading volumes.

## Momentum in our strategic delivery

Metrics	2019	2023	2025 target	2030 aim
 <b>Resilient hydrocarbons</b>				
Biofuels production 	23kb/d	32kb/d 2022 27kb/d	~50kb/d	~100kb/d
Biogas supply volumes 	10mboe/d	15mboe/d 2022 12mboe/d <sup>a</sup>	~40mboe/d	~70mboe/d
LNG portfolio★	15Mtpa	23Mtpa 2022 19Mtpa	25Mtpa	30Mtpa
 <b>Convenience and mobility</b>				
Customer touchpoints★ per day 	>10 million	>12 million 2022 ~12 million	>15 million	>20 million
Strategic convenience sites <sup>b</sup> ★ 	1,650	2,850 2022 2,400	~3,000	~3,500
Electric vehicle charge points★ 	>7,500	>29,000 2022 ~22,000	>40,000	>100,000
 <b>Low carbon energy</b>				
Hydrogen production (net) 	—	—	—	0.5-0.7Mtpa
Developed renewables to final investment decision★ (net) 	2.6GW	6.2GW 2022 5.8GW	20GW	50GW
Installed renewables capacity★ (net) 	1.1GW	2.7GW 2022 2.2GW	—	~10GW

Key:

 Denotes transition growth engine

<sup>a</sup> 2022 excludes Archaea Energy.

<sup>b</sup> Reported to the nearest 50.

★ See the glossary on [pages 33-35](#)

## Our progress in 2023

In 2023 the average carbon intensity of our sold energy products was 77gCO<sub>2</sub>e/MJ. This represents a 3%<sup>a</sup> 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.

### Aim 3 update

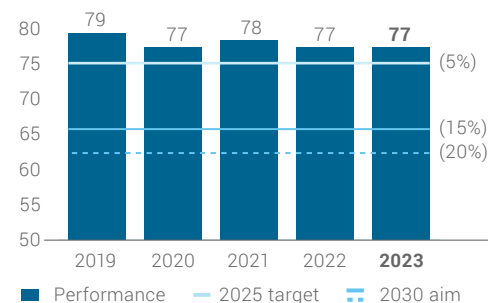
Energy included under aim 3 for 2019 (our baseline year) has been restated to 20.3EJ and the emissions to 1,597MtCO<sub>2</sub>e to correct misstatements in sales data identified through business reviews and digital improvement projects. Overall, the 2019 carbon intensity remained at 79gCO<sub>2</sub>e/MJ. We have made similar restatements for other reporting years which are captured in the data in this section.

In 2023 improvements in our aim 3 methodology included a more granular assignment of environmental attributes to power and the application of increased consistency between financial and carbon reporting which resulted in the inclusion of additional sales volumes by equity accounted entities. Further details of the aim 3 methodology are described in the *bp Basis of Reporting 2023*.

 Read more: [bp.com/basisofreporting](https://bp.com/basisofreporting)

### Average carbon intensity of sold energy products<sup>b,c</sup>

(gCO<sub>2</sub>e/MJ)



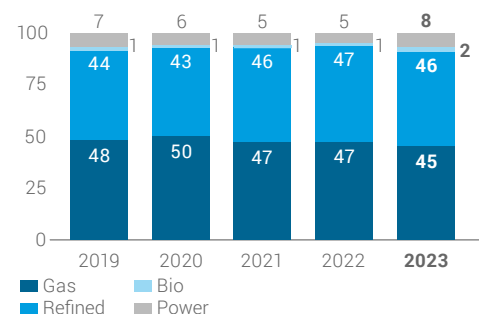
### Average carbon intensity of sold energy products<sup>c</sup>

(gCO<sub>2</sub>e/MJ)

	2019	2020	2021	2022	2023
Average emissions intensity of energy products	79	77	78	77	77
Refined energy products	95	92	92	92	92
Gas products	68	67	67	67	67
Bioproducts	47	44	43	43	40
Power products <sup>d</sup>	56	58	56	52	50

### Share of energy delivered per energy product type<sup>c,e</sup>

(%)



<sup>a</sup> The percentage change is calculated from the source data instead of the rounded carbon intensity number.

<sup>b</sup> The aggregate lifecycle emissions and energy values used in the calculation of the average lifecycle carbon intensity of sold energy products are provided in the *bp ESG Datasheet 2023*.

<sup>c</sup> 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.

<sup>d</sup> Covers all power, including renewable and non-renewable.

<sup>e</sup> The share of energy is based on the total energy associated with sales of energy products, with electricity represented as fossil equivalence of sold energy. Due to rounding the sum of the component parts may not exactly equal 100%. This does not affect the underlying values.



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## Reducing methane

Our 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.

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

### Progress and targets

Methane intensity<sup>a</sup>

0.12% <sup>b</sup>	2020 performance
0.07% <sup>b</sup>	2021 performance
0.05% <sup>b</sup>	2022 performance
<b>0.05%<sup>b</sup></b>	<b>2023 performance</b>
0.20%	2025 target <sup>c</sup>
50%	Aim <sup>d</sup>

### Our actions

#### Methane measurement

We have completed the implementation of our planned methane measurement approach across our upstream★ oil and gas assets, with the introduction of software for flare efficiency, predictive emissions monitoring on gas turbines, and additional or updated meters among other measures. This follows more than three years' work to identify suitable measurement solutions and manage their roll-out across our varied and complex global operations.

We are also using drone and aircraft-mounted sensors to verify reported methane emissions at selected locations and in 2023 this approach was tested further ahead of planned wider deployment up to 2025.

In 2023 together with Baker Hughes, we tested and deployed Flare.IQ to track flare performance in near real-time. The new technology uses data from existing metering systems and modelling to better determine methane emissions from flaring.

Initial insights from our methane measurement activities suggest that our upstream flaring efficiency may, under certain environmental conditions, be better than previously understood and methane emissions from gas turbines may be lower than previously understood based on the existing methodology.

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.

Across bpx energy's operations in the US, we use a varied approach to detection and measurement, reflecting the geographic spread of bpx energy facilities and the diverse types of equipment that may be methane sources. This approach includes measurement programmes, focused on pneumatics and fugitive leaks, direct measurement of large engines and detailed engineering calculations. These activities are complemented by the use of fixed wing aerial surveys, drones and handheld cameras.

#### Methane reduction activity

In 2023 we continued work to reduce operational methane emissions – including upgrades in our current operations and advances in the design of our new facilities. Methane sustainable emissions reductions (SERs)★ were around 56ktCO<sub>2</sub>e, and were delivered across multiple projects. For example, our North Sea and Trinidad and Tobago operations reduced methane emissions from flaring and venting by using nitrogen as a purge gas.

bpx energy utilizes electrification and centralized production facilities that allow new well sites to be built without tanks, flares or on-site compression, which reduces the methane and flaring intensity in its US, Permian Basin operations. This network of facilities was expanded with the start-up of the Bingo facility in August 2023.

#### Technology implementation

The use of technologies to detect, measure and reduce methane is evolving at pace. The measurement technology solutions adopted on our flares and gas turbines will provide us with real-time data to help improve methane performance. We will monitor new developments and assess new solutions as they emerge.

#### Non-operated joint venture (NOJV) activities

With guidance from our NOJV Solutions team, we are working to help our NOJVs improve the reporting and mitigation of their methane emissions.

We have prioritized collaboration with NOJVs that have the greatest potential to reduce methane emissions, and we are working on multiple aspects related to methane emission reductions, including measuring and reporting, the use of technology and setting meaningful targets.

We are helping different NOJVs make progress and in many instances we are learning from them. We encourage them to work in line with guidance from organizations such as the Methane Guiding Principles (MGP) and the Oil and Gas Methane Partnership (OGMP). Our collaborations with NOJVs in 2023 included seminars on methane monitoring technologies, awareness raising sessions on OGMP and workshops to identify emissions reductions opportunities.

#### Collaboration and methane advocacy

In 2023 we retained gold status for our plans to measure methane emissions under the OGMP 2.0 reporting framework. This award recognized the work of many bp teams and collaborations with our partners including NOJVs. Our work under OGMP is consistent with and goes beyond aim 4.

In December 2023 bp and the State Oil Company of the Azerbaijani Republic (SOCAR) signed a memorandum of understanding to work together to improve methane reduction education, capability development, measurement, reporting, verification, technology and technical expertise in Azerbaijan. This followed the launch of the Advancing Global Methane Reductions (AGMR) project in Azerbaijan in November.

This project is part of a larger undertaking being run through the MGP which aims to accelerate country-level methane emissions reductions. As part of the AGMR, SOCAR and bp plan to bring together key stakeholders, partners, research institutes and government leaders to support efforts towards developing a methane reduction pathway that meets the needs of Azerbaijan's energy sector.

a Methane intensity refers to the amount of methane emissions from bp's operated upstream oil and gas assets as a percentage of the total gas that goes to market from those operations. Our methodology is aligned with the Oil and Gas Climate Initiative's (OGCI).


b 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.

c The 0.20% methane intensity target is based on our new measurement approach. Methane intensity is currently calculated using our existing methodology.

d The 50% reduction we are aiming for is against a new baseline which we plan to set based on the new measurement approach.

★ See the glossary on [pages 33-35](#)

We have advocated for sound methane policy, including the federal regulation of methane emissions in the US.

 [Read more about our advocacy activities on page 22](#)

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

### Oil & Gas Decarbonization Charter

We are part of a group of more than 50 companies that have signed the Oil & Gas Decarbonization Charter, launched at COP28 in December 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.

We believe it represents an important opportunity for the oil and gas sector to continue driving down operational emissions through concerted action. We know that different players in our sector are at different stages in their decarbonization journeys, but we believe a collective, inclusive approach can contribute to global efforts to meet the Paris goals. The Charter recognizes the need for leading companies to support others in the earlier stages of their methane journeys.

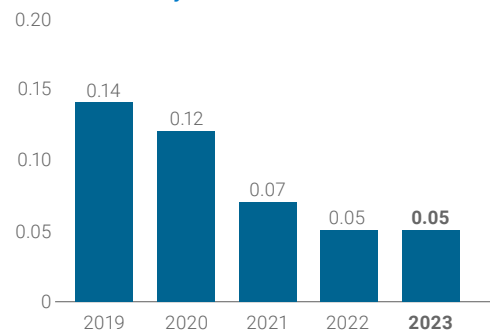
We also intend to donate \$25 million to the Global Flaring and Methane Reduction trust fund – a World Bank initiative to boost financing mechanisms and technical solutions that enable methane emissions reduction.

### Our progress in 2023

We maintained our methane intensity at 0.05% in 2023<sup>b</sup>. 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 remain on track to reach zero routine flaring by 2030 in line with our aim under the World Bank's Zero Routine Flaring Initiative. Our bpx energy operations have achieved zero routine flaring, ahead of our 2025 goal.

#### Methane intensity<sup>a,b</sup>



<sup>a</sup> Methane intensity refers to the amount of methane emissions from bp's operated upstream oil and gas assets as a percentage of the total gas that goes to market from those operations. Our methodology is aligned with the Oil and Gas Climate Initiative's (OGCI).

<sup>b</sup> 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.

★ See the glossary on [pages 33-35](#)



In 2023 we completed our second bpx energy central processing facility, Bingo. This follows Grand Slam, which came online in 2021.

bpx energy, Permian Basin, Texas, US

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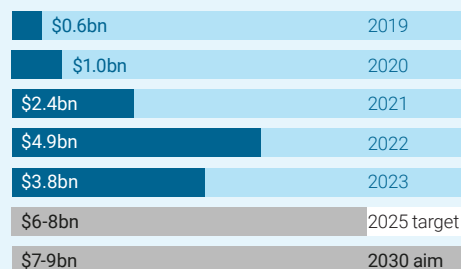
## More \$ into transition

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

Over time, as investment goes up in low and zero carbon, we see it going down in oil and gas.

### Progress and targets

Annual \$ investment in transition growth★ engines



### Our progress in 2023

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 in our transition growth engines or in our low carbon activity★ subset.

Our disciplined approach to capital investment means that we will make individual investments when we consider there to be a clear and compelling business case to do so in line with our balanced set of investment criteria.

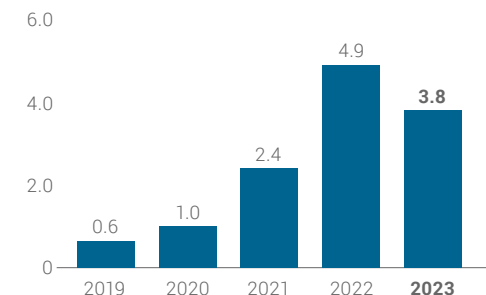
★ Read more in the [bp Annual Report 2023 page 30](#)

We are targeting an increase in the proportion of our annual capital expenditure invested in our transition growth engines. To reach \$6-8 billion in 2025 and \$7-9 billion annual investment by 2030 is dependent both on the timing of investments, as referred to above, and their continuing alignment with our investment governance framework. This seeks to ensure that investments align with our strategy, can be accommodated within our prevailing financial frame and add shareholder value.

To support this increased capital expenditure, we are continuing to advocate for policies that support investment in our transition growth engines (see [page 22](#)).

### Transition growth investment

(annual \$bn)



### Bioenergy

We plan to grow our established bioenergy businesses. In 2022 we acquired Archaea Energy, which continued its growth throughout 2023. In October, Archaea Energy started up its modular design renewable natural gas (RNG) plant in Medora, Indiana, US, which represents an industry first and can help to streamline and accelerate build times for other RNG plants. Archaea Energy has a development pipeline of around 80 projects, and expects to start up 15-20 new plants per year through 2025.

In 2023 we increased our biofuels production★ by 18% year on year to 32kb/d and biogas supply volumes★ by 80% year on year to 15mboe/d reflecting the uplift from Archaea.

★ See the glossary on [pages 33-35](#)





## EVs

Together with our strategic convenience site★ network, our investment in EV charging will help us offer low carbon solutions to customers. We believe that for road transport to decarbonize at the pace and scale required to achieve the goals of the Paris Agreement, it is necessary for the roll-out of EV charging infrastructure and use of EVs to be scaled up in parallel with, or even ahead of, the required decarbonization of electricity grids.

In 2023 we continued to grow our EV charging network:

- In the US, we announced that *bp pulse* has entered into an agreement with Tesla for the future purchase of \$100 million of ultra-fast★ chargers. The investment will facilitate the expansion of the *bp pulse* public network across the US and support EV fleet customers by deploying chargers at their private depots.
- In the UK, in partnership with The EV Network and NEC Group, we opened the *Gigahub* at the NEC Campus, Birmingham. It is the UK's largest public EV charging hub, capable of charging around 180 EVs simultaneously.
- We announced a new global mobility agreement with Uber, which will see us work together to help accelerate Uber's commitment to become a zero-tailpipe emissions mobility platform in the US, Canada and Europe by 2030 and globally by 2040.
- We formed a joint venture★ with Iberdrola to accelerate the roll out of EV charging infrastructure 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.

★ See the glossary on [pages 33-35](#)

## Convenience

We had 2,850 strategic convenience sites at the end of 2023, with an aim to grow this total to around 3,000 by 2025 and around 3,500 globally by 2030. In May 2023 we acquired TravelCenters of America, a leading travel centre operator in the US with a network of 290 travel centres strategically located on major highways across the US. This acquisition complements our US convenience and mobility business and brings growth opportunities for our transition growth engines: EV charging via *bp pulse*, convenience, bioenergy and in time, hydrogen.

In Germany, we continued our partnership with Lekkerland with a five-year extension to our agreement to deliver REWE To Go stores at *Aral* retail sites★. In Poland, we extended our partnership with Auchan and plan to add more than 100 EasyAuchan stores to our Polish retail network by the end of 2025. This builds on our existing partnership with Auchan in Luxembourg.

We believe we are well positioned to combine our capabilities and reach in both convenience and EV charging – enabling us to provide customer-focused, lower carbon transport solutions over time.

## Renewables and power

We aim to build a renewables and power portfolio through continued growth in onshore renewables and by developing a global position in offshore wind. This portfolio will support the development of our green hydrogen★, e-fuels, EV charging and power trading businesses. In 2023:

- We were awarded the rights to develop two offshore wind projects in the German tender round – marking our entry into offshore wind in continental Europe. The two North Sea sites have a total potential generating capacity of 4GW.
- We announced our joint venture with Deep Wind Offshore to develop opportunities in South Korea. As part of this agreement, we have acquired a 55% stake in Deep Wind Offshore's early-stage offshore wind portfolio, which includes four projects across the Korean peninsula with a combined potential generating capacity of up to 6GW.
- In the US, Lightsource bp started construction work on the Arche solar project in Ohio, secured by a power-purchase agreement with Meta. In Texas, Lightsource bp also started construction work on the 187MW dc Peacock solar project. Peacock will supply power directly to the Gulf Coast Growth Ventures petrochemical complex as part of a long-term power purchase agreement.

## Hydrogen

We aim to build a global position in hydrogen – initially by supplying our own refineries and then by 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. This technology is expected to help reduce the cost of, and electricity requirements for, green hydrogen production.

In Spain, we announced plans for a low carbon green hydrogen cluster (HyVal) in Spain's Valencia region. This planned initiative is set to be based around the phased development of electrolysis capacity to produce green hydrogen at our Castellón refinery. We also plan to triple the refinery's production of biofuels to help meet the growing demand for low carbon fuels such as sustainable aviation fuel.

### Low carbon activity capital expenditure

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

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# Helping the world get to net zero

bp pulse EV charging site, Guangzhou Chigang, China

★ See the glossary on [pages 33-35](#)

# Five aims to help the world get to *net zero*

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## Advocating

### Our progress

Published our high-level climate policy positions along with examples of relevant activities to be more transparent in our advocacy for global climate policy.

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## Incentivizing employees

### Our progress

Our bonus scorecard measure for eligible employees is now linked to operated carbon emissions (the same Scope 1 and 2 GHG emissions reported under aim 1).

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## Aligning associations

### Our progress

Signed the Oil & Gas Decarbonization Charter which includes aims to achieve net zero operations by 2050, zero routine flaring and near-zero methane emissions by 2030.

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## Transparency leader

### Our progress

Participated in the development of carbon and net zero standards and benchmarks.

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## Clean cities and corporates

### Our progress

Continued to help corporates meet their complex decarbonization needs.

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## Advocating

**Our aim 6 is to more actively advocate for policies that support net zero★, including carbon pricing.**

We have redirected resources to promote well-designed climate policies. In the future, any corporate advertising will be to push for progressive climate policy, communicate our net zero ambition or support delivery of our strategy, invite ideas, or build collaborations.

We will continue to run recruitment campaigns and advertise our products, services and partnerships – although we aim for these to increasingly be low carbon.

### Our progress in 2023

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

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

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. In 2023 these activities included:

- Backing the Global Renewables Alliance's call at COP28 for a target to triple renewable energy capacity and supporting the COP presidency's drive to accelerate the decarbonization of the energy sector.
- Responding to the European Commission consultation on the EU Climate Target for 2040. We confirmed our support for the EU's objective to achieve climate neutrality, called for an economy-wide carbon price, and emphasized the role of renewable power, hydrogen, CCUS and sustainable biofuels and biogas in achieving net zero.
- Supporting the transition to net zero power systems by engaging with European institutions about how to reform electricity markets to drive investment in renewables.
- Supporting the US Environmental Protection Agency's (EPA) development of methane regulations for new, modified and existing sources in the oil and gas industry, published in 2023. These include pathways for advanced leak detection technologies and limitations on routine flaring.
- Continuing our support of the US Inflation Reduction Act, including its role in backing opportunities for hydrogen and sustainable aviation fuel (SAF).
- Advocating for legislation in Washington state, US, that provides incentives for the production and use of SAF. We stated our support for SAF and its role in reducing lifecycle emissions in air travel.

- Supporting the UK Energy Act 2023, now passed into law, including its associated secondary legislation, which will play an essential role in developing the UK's carbon, capture, use and storage (CCUS) and hydrogen industries.
- Advocating for measures to facilitate transport decarbonization, including the Zero Emissions Vehicle Mandate in the UK and the inclusion of more advanced, sustainable biofuels in the European Renewable Energy Directive.
- Supporting reforms to Australia's Safeguard Mechanism, that have now become law and mean that Australia's largest emitters are subject to an emissions baseline and purchase of carbon credits from 1 July 2023.

### Public policy engagement

The public policy environment sets the framework in which we operate and it is undergoing significant change. Our main public policy positions are subject to endorsement through our SVP-level sustainability forum and regional policy forums.

Our positions help us advocate for policies that can drive the transition to a secure, affordable, and low carbon energy system, enable our strategy, and support us to embed sustainability in our business. We monitor the external policy environment to identify opportunities and potential risks to our strategy.

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

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

★ See the glossary on [pages 33-35](#)

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## Incentivizing employees

Our 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<sup>a</sup> employees.

### Our progress in 2023

To help our employees contribute to the delivery of our strategy and sustainability aims, we are educating them about the importance of net zero, and supporting them to become advocates for net zero. Our employee-led Global Sustainability Network also brings together employees from across bp to learn about and act on sustainability.

#### Incentivization

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 is now linked to our operated carbon emissions<sup>b</sup>, 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)<sup>★</sup>.

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<sup>c</sup> two social measures are included – on employee engagement, and improved ethnic minority representation in our senior-level leader<sup>d</sup> population and above.

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.

 Read more in the [bp Annual Report 2023 pages 105-132](#)

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

<sup>b</sup> This measure was previously linked to sustainable emissions reductions<sup>★</sup>.

<sup>c</sup> Group leaders are our most senior leaders. Their roles include operational, functional and regional leadership.

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

<sup>★</sup> See the glossary on [pages 33-35](#)



Azeri Central East project, Azerbaijan

8

## Aligning associations

Our 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.

### Our progress in 2023

Trade associations play a key role in fostering industry collaboration and bringing stakeholders together. They also offer opportunities to share good practice on matters of importance to bp. Our voice is one among many, but we believe everyone needs to work together to achieve net zero.

Progress is sometimes challenging and uneven because associations need to take account of members' differing views. We recognize this and intend to continue using our influence to support our positions. Our priority is to exert influence within trade associations, but we may publicly dissent or resign our membership if there is material misalignment on high-priority issues. Some trade associations advocate on matters they consider important to their members. Despite being a member, we may not always agree with the positions they take.

★ See the glossary on [pages 33-35](#)

We periodically assess the alignment of key associations with our position on climate.

Following our 2022 review of 51 of our most significant trade association memberships, in 2023 we reviewed the progress of the 10 associations found to be 'partially aligned'. This designation means that we disagreed on some positions or that the trade association did not take a public stance on our seven climate positions covering the Paris Agreement, climate science, reducing emissions, carbon pricing, energy efficiency, technology, and carbon credits.

Throughout 2023 we made a case for action in support of our position on climate with these 10 'partially aligned' groups. Overall, we are encouraged by the progress of our trade association memberships. In some cases, by working with others we have succeeded in influencing trade associations' positions – for example, the American Petroleum Institute, with respect to advocacy for year-round sales of E15 gasoline. However, there remain areas where we are partially aligned and on which we continue to engage.

 [bp.com/tradeassociations](https://bp.com/tradeassociations)

### New memberships in 2023

As we transition to become an integrated energy company, our trade association memberships are changing. The associations we joined in 2023, which have fees of \$50,000 or more per year, are:

- **Business Council, British Chambers of Commerce** – an organization representing large companies in Britain, focused on shaping national debate.
- **G+** – a global organization for the offshore wind industry that drives health and safety performance.
- **H2Accelerate** – a European organization focused on hydrogen use in long-haul, heavy-duty trucking.
- **RenewableUK** – an organization focused on supporting renewable energy deployment across the UK, and access to global markets.

### Updates to our climate policy positions

As the world continues working towards net zero, our policy positions and expectations of the trade associations we belong to will naturally evolve. In 2023 we updated two of the climate positions we use to review trade associations, 'reducing emissions' and 'technology', to take stronger account of our transition growth★ engines (bioenergy, convenience, EV charging, hydrogen and renewables and power).

### Working with trade associations on climate issues

Throughout 2023 we pushed for constructive engagement on climate policy proposals, for example:

#### The Oil and Gas Climate Initiative (OGCI)

OGCI convened its members to help drive action on climate in areas including methane emissions reduction, carbon capture and storage and the decarbonization of transport. OGCI supported the Oil and Gas Decarbonization Charter, a COP28 initiative, which we signed in 2023. Read more on [page 17](#).

#### ChargeUK

We played a key role in the creation of ChargeUK, a trade association that brings together leading EV charging infrastructure providers in the UK. It enables charge point operators to work together, with government and other stakeholders to accelerate charging infrastructure roll-out and help make regulations fit for purpose.



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## Transparency leader

### Our 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).

We intend to work constructively with the TCFD and others – such as the International Sustainability Standards Board (ISSB) – to develop good practices and standards for transparency.

### Our progress in 2023

We continued taking 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.

Alongside some of our peers, we participated in the new Net Zero Standard for Oil & Gas developed by the Institutional Investors Group for Climate Change. And throughout 2023 we responded to various other consultations.

We support work to align global reporting standards and want to play our part in the development of high-quality, reliable and 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 the UK.

We are members of the European Round Table for Industry which, in November 2023, supported the IFRS declaration of support for the ISSB's climate-related reporting, which was announced during Finance Day at COP28. We also expressed our support to the chair of the International Sustainability Standards Board (ISSB) for the creation of consistent global standards for sustainability and to advocate for interoperability between different standards and appropriate equivalency arrangements between jurisdictions.

 Read more: [bp.com/advocacyactivities](https://bp.com/advocacyactivities)

#### TCFD disclosures

Since 2021 we have reported in line with the FCA Listing Rule LR 9.8.6(8), which 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 the TCFD Recommendations and Recommended Disclosures, and consequently compliant with the Listing Rule.

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

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'. We used the WBCSD Scenario Catalogue to inform our own scenario analysis<sup>a</sup>.

#### Testing the resilience of our strategy

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. In our climate-related financial disclosures in the *bp Annual Report 2023* (pages 55-68), 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 the WBCSD classify to be consistent with well-below 2°C and 1.5°C outcomes<sup>a</sup>.

As we explain in our disclosure, 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 scenarios consistent with limiting temperature rise to 1.5°C.

 [bp.com/TCFD](https://bp.com/TCFD)

 Read more about our climate-related financial disclosures in the [bp Annual Report 2023 pages 55-68](#)

#### CDP

We submit data as part of the CDP climate change questionnaire and make a copy available on our website. In 2023 we received a score of A- (2022 B).

 Read our responses to the CDP climate change questionnaire: [bp.com/ourreporting](https://bp.com/ourreporting)

<sup>a</sup> 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.

## Clean cities and corporates

Our 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.

We provide integrated multi-energy solutions to help large corporations reduce their carbon emissions – bringing together expertise from across bp and from our partners. 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.

### Our progress in 2023

We continued to help corporates meet their complex decarbonization needs through our integrated approach, which draws on expertise from across bp.

#### Integrated energy hubs

In Teesside, UK, we continued advancing our plans to help decarbonize local heavy industries at scale. During the year:

- 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. A six-week statutory consultation for H2Teesside was also completed.
- bp and Equinor were awarded a carbon storage licence by the North Sea Transition Authority, which will enable the development of further carbon dioxide 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 carbon dioxide a year in the Southern North Sea, by 2035.
- Remediation work on the former Redcar steelworks commenced, with plans to locate Net Zero Teesside Power there.

We launched plans for a low carbon green hydrogen★ cluster called HyVal, at our Castellón refinery in the Valencia region of Spain. Led by bp, this planned public-private collaborative initiative is set to be based around the phased development of up to 2GW of electrolysis capacity for producing green hydrogen.

#### Decarbonizing sectors Industrial emissions

We signed a new memorandum of understanding (MoU) with Chubu Electric Power to explore the feasibility of collecting, aggregating, and transporting carbon dioxide from major emitters in Japan's Nagoya area for storage at the bp-operated Tangguh site in Indonesia. We also signed a MoU with GE Vernova, CARBONCO, PLN Nusantara Power and Jawa 1 in Indonesia to develop a carbon capture, use and storage (CCUS) value chain feasibility study, including the evaluation of carbon dioxide storage opportunities at Tangguh.

#### Logistics and transport emissions

Given the diversity of the logistics and transport sector, our work involves several different kinds of decarbonization solutions, including electrification, hydrogen, mobility and biofuels.

In the US, we announced plans to invest \$1 billion in EV charging across the country by 2030, to help meet potential demand from Hertz's EV rentals in major cities including San Francisco, Miami, Los Angeles, Houston, Chicago and Washington DC. We also signed a global mobility agreement with Uber to help accelerate their commitment to become a zero-tailpipe emissions mobility platform in the US, Canada and Europe by 2030 and globally by 2040.

In Germany, *bp pulse* has built Europe's first public charging corridor for electric trucks along a major logistics route, the Rhine-Alpine corridor. The installed ultra-fast★ 300kW electric chargers can add up to 200km of range to medium and heavy-duty vehicles in just 45 minutes charging time.

We are aiming to be a leading supplier of sustainable aviation fuel (SAF). In March 2023 we announced our first sale of International Sustainability and Carbon Certification EU SAF from our Castellón refinery in Spain, to LATAM Cargo. In November, Air bp was one of the SAF suppliers for the Virgin Atlantic Flight100 – the first 100% SAF transatlantic flight by a commercial airline. This helped demonstrate that today's aircraft are capable of safely flying using 100% SAF.

 [Read more on our transition growth investment★ on pages 18-19](#)

★ See the glossary on [pages 33-35](#)

# Supporting a just energy transition

Our aim 12 is to support a just energy transition that advances human rights and education. We support the Paris Agreement, which recognizes the importance of a just transition – one that delivers decent work, quality jobs and supports the livelihoods of local communities. We believe that respect for human rights and strong environmental and social performance are necessary for a just transition. Our policies and practices reflect this belief.

We are continuing our work to develop just transition plans in priority areas, including for our transition growth★ engines.

## Progress to date

In 2023 we continued with our initiatives to support a just transition for our employees, help the local workforce develop skills for the future energy system, and build strong relationships with local communities – supporting civic dialogue, transparency and capacity building in civil society organizations.

### Just transition for bp employees and the wider workforce

Our approach to enabling a just transition for our own workforce is complemented by our internal processes and practices. These include our strategic workforce planning activities which look at the ways in which we attract, recruit, develop and reward employees and can also include redeploying employees into our transition growth engines from other businesses.

We support education and employability activities that help people develop transferable skills needed for careers in energy and other sectors, often with a focus on disadvantaged and underrepresented communities. In 2023 we expanded our

apprenticeships programme globally and now have 750 apprenticeships working in our business. We have also increased the number of work experience placements to 500, hosted in countries including UK, India and South Africa.

We are participating in industry discussions around skilling for the energy transition. These often have a specific focus on a just transition. For example, we chair the Hydrogen and CCUS Task and Finish Group, a multi-stakeholder body that is shaping recommendations to tackle workforce demand and skilling challenges for the UK government's Green Jobs Action Plan (to be published in 2024).

### Just transition for local communities

To enable a just transition where we work, we aim to grow our involvement in community regeneration initiatives. We are launching participating in or supporting many different initiatives – particularly those focused on building new skills and retraining, social mobility, and education on clean energy in many of the areas where we are developing our transition growth engines.

In Scotland, we are supporting several social, economic and skills development projects with our JV partners, including the Aberdeen Hydrogen Hub – a JV with Aberdeen City Council, and the X-Academy training programme which supports the Morven offshore wind project.

In Teesside, we are contributing to the local Skills Improvement Plan and are active participants in several community initiatives designed to help local people from diverse backgrounds prepare for jobs in low carbon industries. These include the Teesside Clean Energy Technician scholarships, with around 40 students expected to be enrolled by the end of 2024.

In Western Australia, we have begun working with Creating Communities, an organization focused on community engagement to drive just transitions. This work will help us understand the needs of the communities surrounding our projects and how they hope to benefit from the energy transition. This, in turn, will help to inform our approach to social investment and engagement in the region.

We are involved in several collaborations to help energy businesses support a just transition including Energy for a Just Transition, which is led by Business for Social Responsibility and The B Team. Through our participation in 2023, we contributed to the Just Transition Planning Toolkit for Business.

In addition, our head of country UK and SVP Europe sits on the Business in the Community (BITC) Climate Action Leadership Team, which aims to support businesses to lead a just transition to a net zero economy.

 Read more about our aim 12 in the *bp Sustainability Report 2023* at [bp.com/sustainability](https://bp.com/sustainability)



Teesside Clean Energy Technician scholars.

Redcar and Cleveland College, Teesside, UK

★ See the glossary on [pages 33-35](#)



# Governance and capital allocation

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Project Seagull, North Sea, UK



# Governance

We continue to strengthen the ways we build sustainability into our wider governance structure and business practices, including our capital investment decisions.

## Focusing on shareholder value

We continue to operate within a resilient and disciplined financial frame. It comprises five 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.

As we set out in the *bp Annual Report 2023*, a resilient dividend remains our first priority. Our second priority is a strong investment grade credit rating. Our next priorities are disciplined investment allocation across our transition growth★ engines and oil, gas, refining and other businesses. And, finally, we are committed to returning at least 80% of surplus cash flow in a point forward basis (at current market conditions) and subject to maintaining a strong, investment grade credit rating.



Read more about our financial frame in the [bp Annual Report 2023 pages 28-29](#)

## Accountability and decision-making

The board is responsible for setting the strategy, for monitoring bp's management and operations and obtaining assurance about the delivery of its strategy. 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, the impact of our operations on the communities where we operate and the environment.

The board and its committees have oversight of climate-related issues<sup>a</sup>, which include climate-related risks and opportunities. Climate-related risks and opportunities were discussed at all six board meetings covering strategy in 2023. The other board committees consider climate-related issues where they consider it appropriate to do so in fulfilling their responsibilities. There is more information on our governance of climate-related matters in the *bp Annual Report 2023*.

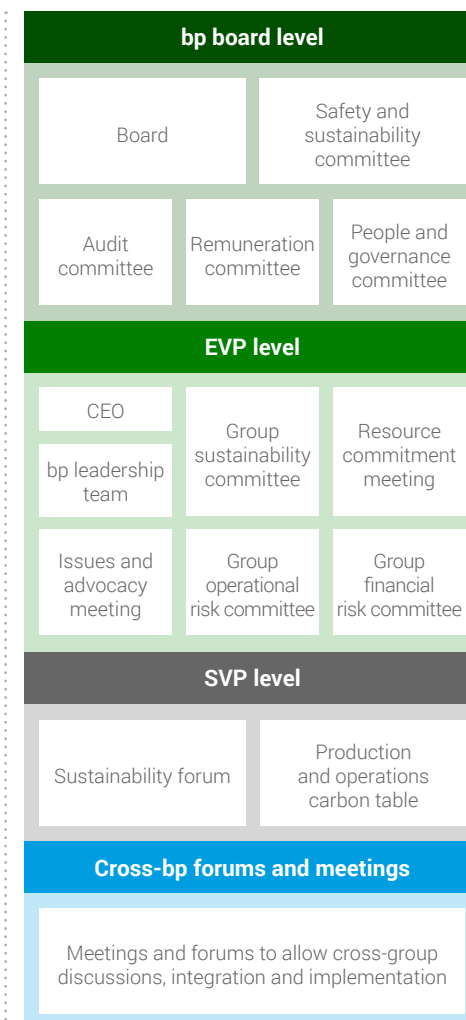
The board believes its members possess the necessary expertise related to climate change and sustainability to support the group's strategy. In particular, six of our non-executive directors have specific climate change and sustainability expertise, as set out on page 56 of the *bp Annual Report 2023*.

The board, subject to certain conditions and limitations, delegates day-to-day management of the business of the company to the CEO. Under his delegation, the CEO has the responsibility to oversee 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 which 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](https://www.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 right). At an executive level, the group sustainability committee continues to provide oversight, challenge and support in the implementation of bp's sustainability frame and management of potentially significant non-operational sustainability (including climate-related) risks and opportunities. It met four times in 2023.

Read more in the [bp Annual Report 2023 pages 55-56](#)

Read more at [bp.com/governance](https://www.bp.com/governance)



<sup>a</sup> 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.

★ See the glossary on [pages 33-35](#)

# Evaluating capital investment for consistency with Paris

## Capital allocation

We are focused on the disciplined allocation of capital to deliver on our strategic objectives. In 2023 capital expenditure★ was \$16.3 billion. We expect capital expenditure to remain around \$16 billion per year between 2024-25. This includes expenditure on inorganic opportunities. 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 31](#).

## 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. Our investment governance process, including the role of the board, is described in the *bp Annual Report 2023* (page 31).

## 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 and considers any key issues raised in the assurance process.

 [Read more in the bp Annual Report 2023 page 31](#)

## Paris consistency evaluation process

The CA100+ resolution★ requisitioned in 2019, requires bp to disclose how we evaluate the consistency of new material capital expenditure 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. 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. The evaluation process is described on [page 31](#) and in the *bp Annual Report 2023* (pages 33-34).

We evaluated new material capital expenditure investment in scope using our central price assumptions (see right) and, where applicable, using our lower-price case. Where relevant the evaluation also incorporated our carbon price assumptions, applied to the anticipated operational greenhouse gas emissions associated with the investment, through 2050 (see right).

## 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.

## Key investment appraisal assumptions<sup>a</sup>

Throughout 2023 we held our key investment appraisal price assumptions constant throughout the year at the levels set out in the *bp Annual Report 2022*. For relevant investment cases assessed in 2024, we have applied and plan to apply the prices shown in the table below 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

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 <sup>b</sup> ★	14	14	11	8.5

In addition to the prices shown we also test whether investments meet our return expectations (see page 31) using other prices, including a \$60/bbl Brent oil price series.

## Carbon price (US\$/tCO<sub>2</sub>e)

2022 \$ real	2025	2030	2040	2050
	54	108	216	270

These price assumptions form part of a framework that seeks to ensure investments align with our strategy and add shareholder value.

## 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

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.

We continue to apply carbon prices rising to \$100/tCO<sub>2</sub>e in 2030 and \$250/tCO<sub>2</sub>e by 2050 (2021 \$ real) in certain cases. In 2022 \$ real terms, this corresponds to \$108/tCO<sub>2</sub>e by 2030 and \$270/tCO<sub>2</sub>e by 2050.

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.

<sup>a</sup> The values in this table represent the central case

<sup>b</sup> The disclosed refining marker margin (RMM) assumption in the table excludes carbon pricing impacts and assumes a normalized cost of renewable identification numbers (RINs).

★ See the glossary on [pages 33-35](#)



**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 bring growth opportunities in four of our five transition growth★ engines.

**bp pulse On-The-Go US**

bp approved \$500 million of investment 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**

bp agreed to acquire the remaining 50.03% interest in Lightsource bp, one of the world's leading developers and operator of utility-scale solar and battery storage assets. Completion of the acquisition, which is subject to regulatory approvals, 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 Germany, marking our entry into offshore wind in continental Europe. We expect the 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. On completion the acquisition will materially expand our European power and gas C&I supply presence.

★ See the glossary on [pages 33-35](#)

**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★ 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.

Investment cases above defined thresholds for anticipated annual GHG emissions from operations must estimate those anticipated emissions and incorporate carbon pricing for those emissions into the investment economics.

All resource commitment meeting cases must consider significant impacts of an investment on key sustainability aims, informed by our sustainability assessment template for investment cases.

**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 internal rate of return, net present value, discounted payback, and profitability index, reflecting assumptions about relevant commodity prices, margins and carbon prices. Investments are considered against differentiated return expectations, depending on business segment. 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 internal rate of return (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 a portfolio-level IRR in excess of 15%.
4. For our hydrogen investments, we expect double-digit (unlevered) IRR.
5. For renewables & power investments, we seek an unlevered IRR of 6-8%.

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 hurdles set out above, we also compare the internal rate of return in our lower-price case to a cost of capital hurdle rate. For additional capital discipline for investments in oil and gas production, we also consider 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](#)).

**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. Variations 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.

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# Glossary and appendices

# Glossary

## Average carbon intensity of sold energy products

The rate of GHG emissions per unit of energy delivered (in grams CO<sub>2</sub>e/MJ) estimated in respect of sold energy products★. GHG emissions are estimated on a lifecycle basis covering use, production, and distribution of sold energy products.

## Biofuels production

Biofuels production is the average thousands of barrels of biofuel production per day during the period covered, net to bp. This includes equivalent ethanol production, bp Bunge biopower for grid export, refining co-processing and standalone hydrogenated vegetable oil (HVO).

## Biogas supply volumes

Biogas supply volumes is the average thousands of barrels of oil equivalent per day of production and offtakes during the period covered net to bp.

## Blue hydrogen

Hydrogen made from natural gas in combination with carbon captured and stored (CCS).

## Capital expenditure

Total cash capital expenditure as stated in the group cash flow statement. Capital expenditure for the operating segments and customers & products businesses is presented on the same basis.

## CA100+ resolution

The CA100+ resolution means the special resolution requisitioned by Climate Action 100+ and passed at bp's 2019 Annual General Meeting, the text of which is set out below.

Special resolution: Climate Action 100+ shareholder resolution on climate change disclosures.

That in order to promote the long-term success of the company, given the recognized risks and opportunities associated with climate change, we as shareholders direct the company to include in its strategic report and/or other corporate reports, as appropriate, for the year ending 2019 onwards, a description of its strategy which the board considers, in good faith, to be consistent with the goals of Articles 2.1(a)(1) and 4.1(2) of the Paris Agreement (3) (the Paris goals), as well as:

- (1) Capital expenditure: how the company evaluates the consistency of each new material capex investment★, including in the exploration, acquisition or development of oil and gas resources and reserves and other energy sources and technologies, with (a) the Paris goals and separately (b) a range of other outcomes relevant to its strategy.
- (2) Metrics and targets: the company's principal metrics and relevant targets or goals over the short, medium and/or long term, consistent with the Paris goals, together with disclosure of:
  - a. The anticipated levels of investment in (i) oil and gas resources and reserves; and (ii) other energy sources and technologies.
  - b. The company's targets to promote reductions in its operational greenhouse gas emissions, to be reviewed in line with changing protocols and other relevant factors.
  - c. The estimated carbon intensity of the company's energy products and progress on carbon intensity over time.
  - d. Any linkage between the above targets and executive remuneration.
- (3) Progress reporting: an annual review of progress against (1) and (2) above.

Such disclosure and reporting to include the criteria and summaries of the methodology and core assumptions used, and to omit commercially confidential or competitively sensitive information and be prepared at reasonable cost; and provided that nothing in this resolution shall limit the company's powers to set and vary its strategy, or associated targets or metrics, or to take any action which it believes in good faith, would best promote the long-term success of the company.

## Customer touchpoints

Customer touchpoints are the number of retail customer transactions per day on bp forecourts globally. These include transactions involving fuel and/or convenience across all channels of trade.

## Developed renewables to final investment decision (FID)

Total generating capacity for assets developed to FID by all entities where bp has an equity share (proportionate to equity share). If the asset is subsequently sold, bp will continue to record capacity as developed to FID. If bp equity share increases, developed capacity to FID will increase proportionately to share increase for any assets where bp held equity at the point of FID.

## Emissions from the carbon in our upstream oil and gas production

Estimated CO<sub>2</sub> emissions from the assumed combustion of upstream production of crude oil, natural gas and natural gas liquids (NGLs) based on bp's net share of production, excluding bp's share of Rosneft production and assuming that all produced volumes undergo full stoichiometric combustion to CO<sub>2</sub>.

## Energy products

For the purposes of our 2023 disclosures relating to our aim 3, we consider an energy product to be one that is generally used to satisfy an energy demand. In the case of fuels, to burn them to release their calorific content, and in the case of electricity to provide work or heat. For further information on products included in bp's 2023 aim 3 reporting see the *Basis of Reporting*.

 Read more: [bp.com/basisofreporting](https://bp.com/basisofreporting)

## Electric vehicle charge points/EV charge points

Defined as the number of connectors on a charging device, operated by either bp or a bp joint venture, as adjusted to be reflective of bp's accounting share of joint arrangements.

## Fast/Fast charging

Fast charging comprises rapid charging★ and ultra-fast charging★.

## Green hydrogen

Hydrogen produced by electrolysis of water using renewable power.

## Installed renewables capacity

Installed renewables capacity is bp's share of capacity for operating assets owned by entities where bp has an equity share.

## Joint venture

A joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the arrangement.

## LNG portfolio

LNG portfolio refers to bp group's LNG equity production plus additional long-term merchant LNG volumes.



### Low carbon activity

An activity relating to low carbon including: renewable electricity; bioenergy; electric vehicles and other future mobility solutions; trading and marketing low carbon products; blue or green hydrogen★ and carbon capture, use and storage (CCUS). Note that, while there is some overlap of activities, these terms do not mean the same as bp's strategic focus area of low carbon energy or our low carbon energy sub-segment, reported within the gas & low carbon energy segment.

### Low carbon activity investment

Capital investment in relation to low carbon activity★.

### Methane intensity

Methane intensity refers to the amount of methane emissions from bp's operated upstream oil and gas assets as a percentage of the total gas that goes to market from those operations. Our methodology is aligned with the Oil and Gas Climate Initiative's (OGCI).

### Net zero

References to global net zero in the phrase, 'to help the world get to net zero', means achieving a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases on the basis of equity, and in the context of sustainable development and efforts to eradicate poverty', as set out in Article 4(1) of the Paris Agreement. References to net zero for bp in the context of our ambition and aims 1, 2 and 3 mean achieving a balance between (a) the relevant Scope 1 and 2 emissions (for aim 1), Scope 3 emissions (for aim 2) or product lifecycle emissions (for aim 3) and (b) the aggregate of applicable deductions from qualifying activities such as sinks under our methodology at the applicable time.

### Net zero operations

bp's aim to reach net zero operational greenhouse gas (CO<sub>2</sub> and methane) emissions by 2050 or sooner, on a gross operational control basis, in accordance with bp's aim 1 which relates to our reported Scope 1 and 2 emissions. Any interim target or aim in respect of bp's aim 1 is defined in terms of absolute reductions relative to our baseline year of 2019.

### Net zero production

bp's aim to reach net zero CO<sub>2</sub> emissions, in accordance with bp's aim 2, from the carbon in our upstream oil and gas production, in respect of the estimated CO<sub>2</sub> emissions from the combustion of upstream production of crude oil, natural gas and natural gas liquids (based on bp's net share of production, excluding bp's share of Rosneft production and assuming that all produced volumes undergo full stoichiometric combustion to CO<sub>2</sub>). Aim 2 is bp's Scope 3 aim and relates to Scope 3 category 11 emissions within the selected boundary of bp's net share of upstream production of oil and gas. Any interim target or aim in respect of bp's aim 2 is defined in terms of absolute reductions relative to the baseline year of 2019.

### Net zero sales

bp's aim to reach net zero for the carbon intensity of sold energy products★, in accordance with bp's aim 3. Any interim target or aim in respect of bp's aim 3 is defined in terms of reductions in the carbon intensity of the energy products we sell (in grams CO<sub>2</sub>e/MJ) relative to the baseline year of 2019.

### New material capex investment

A decision taken by the resource commitment meeting in 2021 to incur inorganic or organic investments greater than \$250 million that relate to a new project or asset, extending an existing project or asset, or acquiring or increasing a share in a project, asset or entity.

### Operating management system (OMS)

bp's OMS helps us manage risks in our operating activities by setting out bp's principles for good operating practice. It brings together bp requirements on health, safety, security, the environment, social responsibility and operational reliability, as well as related issues, such as maintenance, contractor relations and organizational learning, into a common management system.

### Physically traded energy product

For the purposes of aim 3, this includes trades in energy products★, which are physically settled, with the exception of, for example, financial trades and certain other transactions where the purpose or effect is that the volumes traded or supplied net off against each other.

### Rapid/Rapid charging

Rapid charging includes electric vehicle charging of greater than or equal to 50kW, and less than 150kW.

### Renewables pipeline

Renewable projects satisfying the criteria below until the point they can be considered developed to FID:

Site-based projects that have obtained land exclusivity rights, or for PPA-based projects an offer has been made to the counterparty, or for auction projects pre-qualification criteria has been met, or for acquisition projects post a binding offer has been accepted.

### Retail sites

Retail sites include sites operated by dealers, jobbers, franchisees or brand licensees or joint venture (JV) partners, under the bp brand. These may move to and from the bp brand as their fuel supply agreement or brand licence agreement expires and are renegotiated in the normal course of business. Retail sites are primarily branded bp, ARCO, Amoco, Aral, Thorntons, and TravelCenters of America and also includes sites in India through our Jio-bp JV.

### Sold energy products

For the purposes of aim 3, these represent the energy products we sell to third parties including both marketed sales and physically traded energy products★. For these purposes, intercompany sales (sales between two group subsidiaries) are not included and equity accounted entities are treated as third parties.

### Strategic convenience sites

Strategic convenience sites are retail sites★, within the bp portfolio, which sell bp-supplied vehicle energy (e.g. bp, Aral, Arco, Amoco, Thorntons, bp pulse, TravelCenters of America and PETRO) and either carry one of the strategic convenience brands (e.g. M&S, Rewe to Go) or a differentiated bp-controlled convenience offer. To be considered a strategic convenience site, the convenience offer should have a demonstrable level of differentiation in the market in which it operates. Strategic convenience site count includes sites under a pilot phase.

### Sustainable emissions reductions (SER)

SERs result from actions or interventions that have led to ongoing reductions in Scope 1 (direct), Scope 2 (indirect) greenhouse gas (GHG) emissions (carbon dioxide and methane), or both, such that GHG emissions would have been higher in the reporting year if the intervention had not taken place. SERs must meet three criteria: a specific intervention that has reduced GHG emissions, the reduction must be quantifiable and the reduction is expected to be ongoing. Reductions are reportable for a 12-month period from the start of the intervention/action.

**Transition growth**

Activities, represented by a set of transition growth engines, that transition bp toward its objective to be an integrated energy company, and that comprise our low carbon activity★ alongside other businesses that support transition, such as our power trading and marketing business and convenience.

**Transition growth investment**

Capital investment in relation to transition growth★, that is aligned to our aim 5 (to increase the proportion of investment we make into our non-oil and gas businesses. For this purpose, we define 'oil and gas' activities as those primarily encompassing the production, refining and sale of fossil hydrocarbons and their products and those associated with the dedicated gas and oil trading businesses).

**Ultra-fast/Ultra-fast charging**

Vehicle charging greater than or equal to 150kW.

**Underlying replacement cost (RC) profit or loss**

Non-IFRS measure. RC profit or loss (as defined in the *bp Annual Report and Form 20-F 2023* page 380) after excluding net adjusting items and related taxation. See the *bp Annual Report and Form 20-F 2023* page 337 for additional information on the adjusting items that are used to arrive at underlying RC profit or loss in order to enable a full understanding of the items and their financial impact. Underlying RC profit or loss before interest and tax for the operating segments or customers & products businesses is calculated as RC profit or loss (as defined above) including profit or loss attributable to non-controlling interests before interest and tax for the operating segments and excluding net adjusting items for the respective operating segment or business.

bp believes that underlying RC profit or loss is a useful measure for investors because it is a measure closely tracked by management to evaluate bp's operating performance and to make financial, strategic and operating decisions and because it may help investors to understand and evaluate, in the same manner as management, the underlying trends in bp's operational performance on a comparable basis, period on period, by adjusting for the effects of these adjusting items. The nearest equivalent measure on an IFRS basis for the group is profit or loss attributable to bp shareholders. The nearest equivalent measure on an IFRS basis for segments and businesses is RC profit or loss before interest and taxation.

A reconciliation to IFRS information is provided in the *bp Annual Report and Form 20-F 2023* page 382 for the group and pages 39-47 for the segments.

**upstream**

upstream includes oil and natural gas field development and production within the gas & low carbon energy and oil production & operations segments. References to upstream exclude Rosneft.

# Cautionary statement

In order to utilize the 'safe harbor' provisions of the United States Private Securities Litigation Reform Act of 1995 (the 'PSLRA'), bp is providing the following cautionary statement. This document contains certain forward-looking statements – that is, statements related to future, not past, events and circumstances which may relate to one or more of the financial condition, results of operations and businesses of bp and certain of the plans and objectives of bp with respect to these items. These statements are generally, but not always, identified by the use of words such as 'will', 'expects', 'is expected to', 'aims', 'should', 'may', 'objective', 'is likely to', 'intends', 'believes', 'anticipates', 'plans', 'we see' or similar expressions. In particular, among other statements, statements relating to: bp's net zero ambition and bp's targets, aims and objectives in connection with that ambition including bp's five aims to get bp to net zero (including aims for Scope 1, Scope 2 and Scope 3 emissions and carbon intensity

of bp's sold energy products) and bp's five aims to help the world get to net zero; the resilience of bp's strategy and portfolio across multiple climate scenarios and the uncertainties in the energy transition; bp's expectations, targets and aims for capital expenditure including the proportion of investment allocated to and capital employed in non-oil and gas businesses and transition growth engines over time; and bp's expectations for its oil and gas businesses and transition growth engines and evaluation of capital expenditure for consistency with Paris. By their nature forward-looking statements involve risk and uncertainty because they relate to events and depend on circumstances that will or may occur in the future and are outside the control of bp. Actual results may differ from those expressed in such statements, depending on a variety of factors including the risk factors set forth in our most recent Annual Report and Form 20-F under 'Risk factors' and in any of our more recent public

reports. No material in this document forms any part of any of those documents. No part of this document constitutes, or shall be taken to constitute, an invitation or inducement to invest in BP p.l.c. or any other entity and must not be relied upon in any way in connection with any investment decisions. BP p.l.c. is the parent company of the bp group of companies, all of which are separate legal entities. Unless otherwise stated, the term bp and terms such as 'we', 'us' and 'our' are used in this document for convenience and simplicity and collectively refer to BP p.l.c. and the bp group of companies. Our most recent *Annual Report and Form 20-F* and other period filings are available on our website at [www.bp.com](http://www.bp.com), or can be obtained from the SEC by calling 1-800-SEC-0330 or on its website at [www.sec.gov](http://www.sec.gov).



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