



Scope 1 (direct) emissions, covered by aim 1, were 30.4MtCO₂e – a decrease of 8% from 33.2MtCO₂e in 2021. Of these Scope 1 emissions, 29.7MtCO₂e were CO₂ and 0.7MtCO₂e methane. Emissions decreased due to divestments, delivery of SERs★ and other temporary operational changes.

Scope 2 (indirect) emissions decreased by 0.9MtCO₂e, to 1.5MtCO₂e, a 38% reduction compared with 2021. This decrease resulted from lower carbon power agreements, including those at our Cherry Point, Gelsenkirchen and Rotterdam sites.

- Divestments accounted for 1.2MtCO₂e of the Scope 1 and 2 emissions decrease, including bpx energy divestments and the transition of our Angola business to the Azule integrated joint venture.
- Delivery of SERs reduced Scope 1 and 2 emissions by 1.5MtCO₂e.
- Other permanent reductions, partly delivered in 2021, included the repurposing of the Kwinana refinery (0.1MtCO₂e reduction) and ending production at Foinaven floating production storage and offloading vessel (0.1MtCO₂e reduction).
- Temporary production-related changes accounted for a decrease of 1.0MtCO₂e.
- Total hydrocarbons flared decreased from 967kt to 654kt due to operational flaring reductions and the transition of the Angola business to the Azule integrated joint venture.

SERs from our businesses and activities included:

- Cherry Point, Gelsenkirchen and Rotterdam refineries and Gelsenkirchen Chemicals reduced Scope 2 emissions from purchased electricity by 662ktCO₂e through further lower carbon power agreements.
- Tangguh LNG achieved emissions reductions of 86ktCO₂e through the addition of a steam heat recovery project.
- bpx energy reduced operational emissions by 351ktCO₂e, through projects including further electrification, the introduction of new technologies such as at the Grand Slam facility, and the installation of vapour recovery at Eagle Ford in the US.

bp equity share emissions

We report our operational (Scope 1 and 2) GHG emissions with reference to two boundaries – operational control and bp equity share – in our ESG datasheet. Operational control boundary broadly covers bp-operated assets^a. bp equity share covers 100% of emissions from subsidiaries and the percentage of emissions equivalent to our share of joint arrangements and associates^b. Our Scope 1 and 2 emissions reduced on both an operated and equity share basis, compared with 2021.

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

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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^c (around 361MtCO₂ in 2019). It is associated with the CO₂ emissions from the assumed combustion of upstream production of crude oil, natural gas and natural gas liquids (NGLs).

We are now 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
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 in part linked to reducing that production. We believe that the Scope 3 emissions associated with our upstream oil and gas production will not exceed their 2019 peak and have stated that we are aiming for a reduction in oil and gas production by around 25% by 2030, compared to 2019 (excluding production from Rosneft)^c.

This reduction 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 also resilient to unplanned or unexpected factors such as price volatility and geopolitical risk.

Our exploration and production capital expenditure★ has declined from a peak of \$4.6 billion in 2010, to around \$500 million in 2022.

Carbon capture and storage and blue hydrogen

In future, the Scope 3 emissions under aim 2 could also be reduced by other mitigation actions. For example, the use of carbon capture and storage (CCS) for the production of blue hydrogen★ or electricity from our equity production.

^a Operational control data comprises 100% of emissions from activities operated by bp, going beyond the IPIECA guidelines by including emissions from certain other activities such as contracted drilling activities.

^b 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, following the military action in Ukraine, the bp board announced that bp intends to exit its 19.75% shareholding in Rosneft Oil Company (Rosneft).

^c Excluding bp's share of production in Rosneft. On 27 February 2022, following the military action in Ukraine, the bp board announced that bp intends to exit its 19.75% shareholding in Rosneft Oil Company (Rosneft).

For terms with ★ refer to the glossary on [pages 59-60](#).