



bp Basis of Reporting 2024

March 2025



Reporting criteria summary for selected metrics in our 2024 corporate reporting

The purpose of this document is to outline the approach and scope used for data collection and forms the basis, where relevant, for assurance of selected sustainability performance data, as published in:

- [bp Annual Report and Form 20-F 2024](#)
- [bp Sustainability Report 2024](#)
- [bp ESG datasheet 2024](#)
- bp.com/sustainability

The indicators included cover our activities during the period 1 January to 31 December 2024. Metrics are calculated using a cut of data taken after the end of the reporting period.

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Please refer to selected metrics subject to limited assurance by Deloitte as indicated with a ● below. Deloitte's limited assurance statement can be found on page 48 of the bp Sustainability Report 2024.

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★ See the glossary in the bp Sustainability Report 2024 [pages 46-47](#)



1. Safety^{ab}

1.1 Recordable injury frequency (RIF) – workforce ●

Definition The total number of recordable work-related injuries to bp employees and bp contractors for every 200,000 hours worked by the bp workforce. bp's definition of recordable injury aligns with the Occupational Safety and Health Administration (OSHA) definition under criteria 1904.7.

Scope Reporting period 1 January to 31 December 2024.
The metric covers the bp workforce – bp employees and bp contractors (individuals under a contractual relationship to supply bp with goods and/or services). It includes reported recordable work-related injuries occurring within bp's operational HSSE reporting boundary. That boundary includes bp's own operated facilities and joint ventures★ where bp is the operator. In some cases, we may also provide information about some joint venture activities where bp is not the operator. In 2024 no non-operated joint venture information was included for RIF.

Units Recordable injuries per 200,000 workforce hours worked.

Method IRIS is bp's global application for recording, reporting and learning from health and safety incidents. Injury incidents can be recorded in IRIS by any bp employee and any bp contractor with IRIS access. Entities are responsible for establishing and communicating the requirements and process for reporting incidents per the requirements in OMS★.
Site-level IRIS incident managers are accountable for confirming the completeness and accuracy of the incident record. IRIS determines the classification of an incident using the data submitted in the incident record.

RIF is calculated in IRIS as the total number of recordable injuries divided by the number of workforce hours worked, multiplied by 200,000. Entities are responsible for submitting hours worked into IRIS and may use estimations and/or calculations and/or data directly from contractors where appropriate. These methodologies can vary by entity.

OSHA adopted 200,000 hours as the basis for frequency unitization as it approximately equates to the hours worked by 100 people in a year.

Where OSHA does not provide guidance on classifying specific incidents, internal recommendations are available to assist with incident classification.

Source Recordable injuries are recorded in IRIS by entities across the bp group.
Workforce hours worked are submitted into IRIS by entities across bp group based on HR and contractor data. Recordable injuries and workforce hours worked are the basis of recordable injury frequency reporting.

1.2 Fatalities – workforce ●

Definition A workforce fatality is the death of an employee or contractor as a result of a work-related incident, where work-related refers to an event or exposure in the bp work environment. bp's definition of a fatality aligns with the Occupational Safety and Health Administration (OSHA) definition under criteria 1904.7.

Scope Reporting period 1 January to 31 December 2024.
The metric covers bp workforce – bp employees and bp contractors (individuals under a contractual relationship to supply bp with goods and/or services). It includes reported fatalities occurring within bp's work-related or bp's operational HSSE reporting boundary. That boundary includes bp's own operated facilities and joint ventures where bp is the operator. In some cases, we may also provide information about some joint venture activities where bp is not the operator.

Units Number of work-related workforce fatalities.

Method IRIS is bp's global application for recording, reporting and learning from health and safety incidents. Fatality incidents can be recorded in IRIS by any bp employee and any bp contractor with IRIS access. Entities are responsible for establishing and communicating the requirements and process for reporting incidents per the requirements in OMS.
Site-level IRIS incident managers are accountable for confirming the completeness and accuracy of the incident record. IRIS determines the classification of an incident using the data submitted in the incident record.
Where OSHA does not provide guidance on classifying specific incidents, internal recommendations are available to assist with incident classification.

Source Fatalities are recorded in IRIS by entities across the bp group and are the basis of workforce fatality reporting.

a Exclusions to the three safety metrics – Recordable injury Frequency (RIF) (employee and contractors), total fatalities (employees and contractors) and process safety events (Total of tier 1 and tier 2) may exist where entities that have been recently acquired or where bp has recently taken full ownership have been granted a deviation from specific reporting requirements in bp's operating management system (OMS)★ for an initial transitional period and data are not included in the reported metrics unless specifically noted. Requests for a deviation from reporting requirements are justified and documented, and subsequently endorsed by the relevant entity SVP. For the FY2024 reporting period this includes Archaea, TravelCenters of America, bp bioenergy and Lightsource bp.

b Incidents may have ongoing investigation or assessment at the end of the stated reporting period. Incidents appear within reported data according to the classification as understood at the end of the stated reporting period.

★ See the glossary in the *bp Sustainability Report 2024* [pages 46-47](#)



1. Safety

1.3 Process safety events (tier 1 and tier 2) ●

Definition bp's definitions of tier 1 and tier 2 process safety events (PSEs) align with the American Petroleum Institute (API) guide RP-754 Process Safety Performance Indicators for the Refining and Petrochemical Industries (third edition, August 2021) and The International Association of Oil & Gas Producers (IOGP) Report 456 – Process safety – recommended practice on key performance indicators. The API guide RP-754 and IOGP Report 456 (third edition, August 2021) are closely aligned.

In summary, a PSE is an unplanned or uncontrolled release of any material, including non-toxic and non-flammable materials, from a process, with one or more consequences.

Tier 1 PSEs are the most severe, with consequences including one or more of:

- Unignited release over defined Tier 1 thresholds (as defined in API RP-754).
- Workforce day away from work case (DAFWC – incident that results in an injury where a person is unable to work for a day shift or more).
- Fatality.
- Third-party hospital admission or fatality.
- Officially declared community evacuation or community shelter-in place.
- Fire/explosion.
- Engineered pressure relief discharge to atmosphere or permitted upset emission over the Tier 1 thresholds and with defined consequences.

Tier 2 PSE consequences include:

- Unignited release over defined Tier 2 thresholds (as defined in API RP-754).
- Workforce recordable injury.
- Less severe fire/explosion or PRD discharge or release of material when meeting defined thresholds (as defined in API RP-754) and conditions (which may vary depending on the material released, magnitude of damage and nature of the incident).

Scope

Reporting period 1 January to 31 December 2024

The metric includes reported PSEs occurring within bp's operational HSSE reporting boundary. That boundary includes bp's own operated facilities and joint ventures where bp is the operator. In some cases, we may also provide information about some joint venture activities where bp is not the operator.

Units

Number of tier 1 and tier 2 PSEs.

Method

IRIS is bp's global application for recording, reporting and learning from health and safety incidents. PSEs can be recorded in IRIS by any bp employee and any bp contractor with IRIS access. Entities are responsible for establishing and communicating the requirements and process for reporting incidents per the requirements in OMS.

Site-level IRIS incident managers are accountable for confirming the completeness and accuracy of the incident record. IRIS determines the classification of an incident using the data submitted in the incident record.

Source

PSEs are recorded in IRIS by entities across the bp group and are the basis of PSE tier 1 and tier 2 reporting.



2. Net zero operations^{★a}

2.1 Scope 1 (direct) GHG emissions (operational control boundary) (MtCO₂e) ● Scope 1 (direct) carbon dioxide emissions (operational control boundary) (MtCO₂e) ● Scope 1 (direct) methane emissions (operational control boundary) (Mte) ●

Definition	<p>Total (100%) Scope 1 (direct) GHG emissions from source activities within bp's operational control boundary. bp's reported GHG emissions include methane (CH₄) and carbon dioxide (CO₂). Other GHGs are not included as they are not material to our operations.</p> <p>CH₄ emissions are converted to CO₂ equivalent using the 100-year global warming potential (GWP) recommended by the Fifth Assessment Report (AR5) of the Inter-governmental Panel on Climate Change (IPCC)</p> <p>In addition, this metric is reported with four supporting metrics following the same scope and method outlined below, including the geographical breakdown required for UK Streamlined Energy and Carbon Reporting (SECR)</p> <ol style="list-style-type: none"> I. Carbon dioxide emissions (MtCO₂e). II. Methane emissions (Mt). III. UK and offshore Scope 1 emissions (MtCO₂e). IV. Global (excluding UK and offshore) Scope 1 emissions (MtCO₂e).
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Scope	<p>Reporting period 1 January to 31 December 2024.</p> <p>The scope of GHG data reported covers bp's operational control boundary, which comprises:</p> <ul style="list-style-type: none"> ● bp operated assets (which includes unmanned assets such as wellheads and pipelines where bp workforce are not present on a day-to-day basis, where these are operated by bp). ● Company owned and operated retail sites. ● Vessels for which bp holds the International Safety Management Document of Compliance (DOC). ● Road vehicles, aircraft and rail transportation that are dedicated to bp's business use (this includes vehicles contractually dedicated or leased to exclusive business use for bp operated entities). ● Contractor drilling activities conducted on behalf of businesses under bp operational control. ● Pending handover of field or asset operations, sites and assets where, following divestment, bp no longer has an equity interest but maintains day-to-day operations pursuant to a contractual arrangement. ● Leased offices over 50,000 ft² (reporting units may estimate data if not available from office lessor). <p>Read more in the <i>bp Annual Report 2024</i>, page 40.</p>
Units	MtCO ₂ e/Mte.

^a Some recently acquired entities have been granted a deviation from the requirements of bp's operating management system (OMS)[★] for an initial transitional period. As a result, some of those entities may not have entered data into OneCSR for 2024 in accordance with bp's OMS requirements. For FY 2024 reporting period this relates to TravelCenters of America, and as a result its Scope 1 and 2 GHG emissions have been calculated for the purposes of inclusion within bp's net zero operations figures by extrapolating actuals from a prior year representative year data provided by TravelCenters of America.

[★] See the glossary in the *bp Sustainability Report 2024* [pages 46-47](#)



2. Net zero operations

Method

bp's operating management system (OMS)★ provides a single framework for managing bp's operating activities and includes standards, procedures and guidance which set out bp's requirements for the GHG and energy data submission, approval, and review processes.

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

OMS also sets out the methodologies used for calculation of GHG data. Where regulatory methodologies apply to the RUs' emissions sources, the RU may apply the calculation methodology required by the relevant regulator. Applicable regulatory requirements may include EU Emissions Trading System and US EPA methane regulations. Where regulatory methodologies do not cover certain emission sources, the methodologies laid out in OMS may be used and are primarily based on the API Compendium of GHG Emissions Methodologies for the Oil and Gas Industry 2021 and industry recognized references, such as the IPCC guidelines, US EPA publications and UK EEMS.

Sources of CO₂ primarily fall into these main categories:

- Fuel combustion
- Flares
- Processes

CO₂ emissions for fuel combustion and flaring are quantified based on the fuel consumption and fuel properties for major sources.

Sources of CH₄ primarily fall into these main categories:

- 'Losses' from the extraction (e.g. production), transport, handling and processing of fossil fuels, primarily natural gas and crude oil.
- Incomplete combustion of hydrocarbons.
- Chemical reaction processes.

CH₄ emissions from incomplete combustion of hydrocarbons from fuel gas and flare from producing assets are primarily quantified using measurement based approaches. The other CH₄ emission sources are primarily quantified using emission factors from the sources noted above.

Method cont.

These methodologies include the option to use estimates to calculate emissions based on a hierarchy of preference for environmental performance data calculations, with a bias towards direct measurement, as noted in OMS:

- Continuous direct measurement of emissions
- Continuous parameter monitoring systems
- Periodic measurement of emissions
- Equipment manufacturer emissions factors
- Published emission factors

RUs submit a quarterly breakdown of CO₂ and CH₄ data directly into OneCSR. They are required to account for all significant variances from the previous year.

The RUs follow a formal GHG data submission sign-off process in OneCSR confirming the data has been reported in accordance with OMS requirements. Once submitted, the GHG data is reviewed at corporate level by subject matter experts.

To facilitate publication of data – including in the *bp Annual Report 2024* and the *bp Sustainability Report 2024*, we use a cut-off date of 31 January to allow for verification and internal and external limited assurance prior to reporting. After this date, subject to bp verification, published values are only changed in line with our restatement policy.

If errors in input data or calculations that underpin emissions covered by bp's operational emissions aim including the 2019 baseline year are identified after year end reporting, those numbers are restated for the relevant year or years in the next reporting period, in line with thresholds set out in our reporting policies. The 2019 baseline figure is not restated to reflect acquisitions or divestments in subsequent years. We apply the same approach to both organic and inorganic investment.

Source

OneCSR, the bp group reporting tool.

Direct GHG emissions data are submitted into OneCSR by the RUs, reviewed at corporate level by subject matter experts and the metric is independently assured for use in external reporting.

★ See the glossary in the *bp Sustainability Report 2024* [pages 46-47](#)



2. Net zero operations

2.2 Operational control boundary Scope 2 (indirect) emissions (MtCO₂e) ●

Definition Total (100%) Scope 2 (indirect) GHG emissions from source activities that are within bp's operational control boundary. Scope 2 (indirect) emissions are those associated with the consumption of purchased electricity, heat, steam and cooling.

Scope 2 GHG emissions are reported on the basis of carbon dioxide (CO₂) and methane (CH₄).

bp reports Scope 2 (indirect) emissions using both a location-based approach and market-based approach. The market-based approach is used for reporting and data reported in the bp ESG data sheet. Both methods are used for reporting for UK Streamlined Energy and Carbon Reporting (SECR) found in the *bp Annual Report 2024*.

In addition, these metrics are reported with four supporting metrics following the same scope and method providing the geographical breakdown required for (SECR):

- I. UK and offshore Scope 2 emissions Market based.
- II. Global (excluding UK and offshore) Scope 2 emissions Market based.
- III. UK and offshore Scope 2 emissions Location based.
- IV. Global (excluding UK and offshore) Scope 2 emissions Location based.

Scope Reporting period 1 January to 31 December 2024. bp operational control comprises:

- bp operated assets (which include unmanned assets such as wellheads and pipelines where bp workforce are not present on a day-to-day basis, where these are operated by bp).
- Company owned and operated retail sites.
- Vessels for which bp holds the International Safety Management Document of Compliance (DOC).
- Road vehicles, aircraft and rail transportation that are dedicated to bp's business use (this includes vehicles contractually dedicated or leased to exclusive business use for bp operated entities).
- Contractor drilling activities conducted on behalf of businesses under bp operational control.
- Pending handover of field or asset operations, sites and assets where following divestment, bp no longer has an equity interest but maintains day-to-day operations pursuant to a contractual arrangement.
- Leased offices over 50,000 ft² (reporting units may estimate data if not available from office lessor).

Read more in the *bp Annual Report 2024*, page 40.

Units MtCO₂e.

Method bp's operating management system (OMS)★ provides a single framework for managing bp's operating activities and includes standards, procedures and guidance which set out bp's requirements for the GHG and energy data submission, approval, and review processes.

Data is required to be submitted into the bp group reporting tool, OneCSR in accordance with OMS requirements, broadly based on the GHG Protocol Corporate Standard and the Ipieca Petroleum Industry Guidelines for Reporting Greenhouse Gas Emissions 2nd Edition, May 2011.

OMS also sets out the methodologies we use for calculation of GHG data. These methodologies include the option to use estimates to calculate emissions based on a hierarchy of preference for environmental performance data calculations.

Where activity data is not available for certain sites estimates may be used based on existing data from comparable operations/sites. Our approach to estimation can vary by site depending on its location and activities.

The RUs follow a formal GHG data submission sign-off process in OneCSR to confirm the data have been reported in accordance with OMS requirements. Once submitted, the GHG data is reviewed at corporate level by subject matter experts.

To facilitate publication of data – including in the *bp Annual Report 2024* and the *bp Sustainability Report 2024*, we use a cut-off date of 31 January to allow for verification and internal and external limited assurance prior to reporting. After this date, subject to bp verification, published values are only changed in line with our restatement policy.

If errors in input data or calculations that underpin emissions covered by bp's operational emissions aim including the 2019 baseline year are identified after year end reporting, those numbers are restated for the relevant year or years in the next reporting period, in line with thresholds set out in our reporting policies. The 2019 baseline figure is not restated to reflect acquisitions or divestments in subsequent years. We apply the same approach to both organic and inorganic investment.

★ See the glossary in the *bp Sustainability Report 2024* [pages 46-47](#)



2. Net zero operations

Method cont.

Market-based approach

The responsibility for quantifying and submitting market-based Scope 2 GHG emissions and energy data to be used for reporting is assigned to individual bp facilities and business departments, which are termed reporting units (RUs).

RUs submit a quarterly breakdown of market-based GHG emissions and imported energy use data directly into OneCSR, and are required to account for all significant variances from the previous year and to identify the sustainable emission reductions for the reporting period, where applicable. The approach to the criteria which all contractual instruments must meet for the Scope 2 market-based method broadly aligns with Chapter 7 in the GHG Protocol Scope 2 Guidance.

Purchased instruments for market-based Scope 2 are:

- RECs (US)
- GoOs (Europe)
- REGOs (UK)
- RECs (Australia and New Zealand)

Location-based approach

Location-based emissions are calculated in OneCSR using imported electricity data provided by RUs with the most recently available DEFRA and International Energy Agency (IEA) emission factors applied (without manipulation or edits) to the current reporting year. As steam is imported directly from known sources, the location and market-based calculations for steam emissions are comparable. We do not currently import heat at our sites.

Source

OneCSR, the bp group reporting tool.

Scope 2 (indirect) GHG emissions and imported energy use data are submitted into OneCSR by the RUs, reviewed at corporate level by subject matter experts and the metric is independently assured for use in external reporting.



Methane emissions

2.3 Methane intensity ★ (%) ●

Definition Total methane (CH₄) emissions from upstream★ oil and gas activities operated by bp as a percentage of the marketed gas production from those operations. This is consistent with the Oil and Gas Climate Initiative (OGCI) definition.

Marketed gas production is gas production from operated, producing upstream assets, that reaches a market irrespective of whether bp has custody of the gas.

Scope Reporting period 1 January to 31 December 2024.

CH₄ emissions: all operated upstream assets report CH₄ emissions on a 100% basis including emissions from operated upstream oil and gas and also includes terminals and LNG facilities.

All operated upstream producing assets are in-scope except:

- Exploration drilling activity in new regions
- Non-producing assets, for example offices
- Major new projects prior to first production (oil or gas)

Marketed gas production: all upstream gas reaching a market from bp operated, upstream assets, whether or not this is a bp-owned product, and includes gas production from natural gas wells and associated gas from oil production wells. Throughput from oil and gas terminals is excluded to avoid double counting despite their associated CH₄ emissions being included in the metric.

Units % in volume basis.

Method bp's operating management system (OMS)★ provides a single framework for managing bp's operating activities and includes standards, procedures and guidance which set out bp's requirements for the GHG and energy data submission, approval, and review processes.

CH₄ data is required to be submitted into the bp group reporting tool, OneCSR in accordance with OMS requirements, broadly based on the GHG Protocol Corporate Standard and the Ipieca Petroleum Industry Guidelines for Reporting Greenhouse Gas Emissions 2nd Edition, May 2011. The responsibility for quantifying and submitting CH₄ emissions for reporting is assigned to individual bp facilities and business departments, which are termed reporting units (RUs).

OMS also sets out the methodologies used for calculation of GHG data. Where regulatory methodologies apply to the RUs' emissions sources, the RU may apply the calculation methodology required by the relevant regulator. Applicable regulatory requirements may include US EPA methane regulations.

Method cont.

Where regulatory methodologies do not cover certain emission sources the methodologies laid out in OMS may be used and are primarily based on the API Compendium of GHG Emissions Methodologies for the Oil and Gas Industry 2021 and industry recognized references, such as the IPCC guidelines, US EPA publications and UK EEMs.

These methodologies include the option to use estimates to calculate emissions based on a hierarchy of preference for environmental performance data calculations, with a bias towards direct measurement, as noted in OMS:

- Continuous direct measurement of emissions
- Continuous parameter monitoring systems
- Periodic measurement of emissions
- Equipment manufacturer emissions factors
- Published emission factors

2024 was the first year we started reporting based on the enhanced measurement solutions as part of bp's new methane measurement approach deployed across our major operated oil and gas assets.

RUs submit a quarterly breakdown of CH₄ data by source (based on both direct measurements and calculations) directly into OneCSR. They are required to account for all significant variances from the previous year. Non-operated businesses which submit data directly to bp are not required to use OMS methodologies and may therefore use different calculation methodologies.

The RUs follow a formal data submission sign-off process confirming data has been reported in accordance with bp requirements. Once submitted, CH₄ data is reviewed at corporate level by subject matter experts.

To facilitate publication of data – including in the *bp Annual Report 2024* and the *bp Sustainability Report 2024*, we use a cut-off date of 31 January to allow for verification and internal and external limited assurance prior to reporting. Subject to bp verification, published values are only changed in line with our restatement policy.

Marketed gas data is provided by the central performance management team or directly from specific bp entities using local production reporting systems where bp does not have custody of the gas. Marketed gas data is imported into OneCSR which performs the intensity calculation whereby the volume of CH₄ emissions is divided by the volume of marketed gas.

Methane intensity calculation is consistent with the Oil and Gas Climate Initiative (OGCI) methane intensity methodology.

Source

OneCSR, the bp group reporting tool.

The methane intensity metric is calculated in OneCSR using the CH₄ data provided by RUs, and the marketed gas data provided by the central performance management team or directly from specific bp entities.

★ See the glossary in the *bp Sustainability Report 2024* [pages 46-47](#)



3. Equity GHG emissions^a

3.1 Scope 1 (direct) GHG emissions (equity boundary) (MtCO₂e) ●

Definition bp's equity share of direct carbon dioxide (CO₂) and direct methane (CH₄) emissions. This is irrespective of whether activities are operated by bp (see operational control-based Scope 1 (direct) greenhouse gas emissions). bp's reported GHG emissions include CH₄ and CO₂.

Other GHGs are not included as they are not material to activities reported on the basis of bp's equity share. CH₄ emissions are converted to CO₂ equivalent using the 100-year global warming potential (GWP) recommended by the Fifth Assessment Report (AR5) of the Intergovernmental Panel on Climate Change (IPCC).

Scope Reporting period 1 January to 31 December 2024.

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^b. Where bp enters into a production sharing agreement (PSA) or production sharing contract (PSC), bp's equity share is its entitlement share of net production. Where bp participates with other entities in an unincorporated non-operated joint venture★ (in the absence of a PSA or PSC), bp's equity share is its share of the benefits of the arrangement.

Reporting units (RUs) are advised to check with finance directors so that emissions are collected and submitted based on the status and extent of equity share of any activities within the RU.

Units MtCO₂e.

Method bp's operating management system (OMS)★ provides a single framework for managing bp's operating activities and includes standards, procedures and guidance which set out bp's requirements for the GHG and energy data submission, approval, and review processes.

Data for bp equity GHG emissions is required to be submitted into the bp group reporting tool, OneCSR in accordance with OMS requirements, broadly based on the GHG Protocol Corporate Standard and Ipieca Petroleum Industry Guidelines for Reporting Greenhouse Gas Emissions 2nd Edition, May 2011.

A quarterly breakdown of CO₂ and CH₄ emissions is submitted for each RU into OneCSR, including non-operated businesses within our equity reporting boundary. At year end, these RUs are required to account for all significant variances from the previous year.

The RUs follow a formal GHG data submission sign-off process confirming that the data has been submitted in accordance with OMS requirements. Once submitted, the GHG data is reviewed at corporate level by subject matter experts.

To facilitate publication of data – including in the *bp Annual Report and Form 20-F 2024* and the *bp Sustainability Report 2024*, we use a cut-off date of 31 January to allow for verification and internal and external limited assurance prior to reporting. After this date, subject to bp verification, published values are only changed in line with our restatement policy.

Source Direct GHG emissions data are submitted into the OneCSR by the RUs, reviewed at corporate level by subject matter experts and independently assured for use in external reporting.

a Some recently acquired entities have been granted a deviation from the requirements of bp's operating management system (OMS)★ for an initial transitional period. As a result, some of those entities may not have entered data into OneCSR for 2024 in accordance with bp's OMS requirements. For FY 2024 reporting period this relates to TravelCenters of America, and as a result its Scope 1 and 2 GHG emissions have been calculated for the purposes of inclusion within bp's net zero operations figures by extrapolating actuals from a prior year representative year data provided by TravelCenters of America.

b 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 in the *bp Sustainability Report 2024* [pages 46-47](#)

3. Equity GHG emissions

3.2 Scope 2 (indirect) GHG emissions (equity boundary) (MtCO₂e) ●

Definition bp's equity share of Scope 2 (indirect) GHG emissions. Scope 2 (indirect) emissions are those associated with the consumption of purchased electricity, heat, steam and cooling. bp reports GHG emissions on the basis of methane (CH₄) and carbon dioxide (CO₂).

Scope Reporting period 1 January to 31 December 2024.
 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^b. Where bp enters into a production sharing agreement (PSA) or production sharing contract (PSC), bp's equity share is its entitlement share of net production. Where bp participates with other entities in an unincorporated non-operated joint venture★ (in the absence of a PSA or PSC), bp's equity share is its share of the benefits of the arrangement.

Reporting units (RUs) are advised to check with finance directors so that emissions are collected and submitted based on the status and extent of equity share of any activities within the RU.

Units MtCO₂e.

Method bp's operating management system (OMS)★ provides a single framework for managing bp's operating activities and includes standards, procedures and guidance which set out bp's requirements for the GHG and energy data submission, approval, and review processes.

Data for bp GHG equity emissions is required to be submitted in the bp group reporting tool, OneCSR in accordance with OMS requirements, broadly based on the GHG Protocol Corporate Standard, GHG Protocol Scope 2 Reporting Guidance and the Ipieca Petroleum Industry Guidelines for Reporting Greenhouse Gas Emissions 2nd Edition, May 2011.

A quarterly breakdown of Scope 2 indirect emissions is submitted for each RU into OneCSR, including non-operated businesses within our equity reporting boundary. At year-end, these RUs are required to account for all significant variances from the previous year.

The RUs follow a formal GHG data submission sign-off process and are responsible for ensuring that the data has been submitted in accordance with OMS requirements. Once submitted, the GHG data is reviewed at corporate level by subject matter experts.

To facilitate publication of data – including in the *bp Annual Report and Form 20-F 2024* and the *bp Sustainability Report 2024*, we use a cut-off date of 31 January to allow for verification and internal and external limited assurance prior to reporting. After this date, subject to bp verification, published values are only changed in line with our restatement policy.

Source Scope 2 (indirect) GHG emissions data are submitted into the group reporting tool, OneCSR, by the RUs, reviewed at corporate level by subject matter experts and the metric is independently assured for use in external reporting.

★ See the glossary in the *bp Sustainability Report 2024* [pages 46-47](#)

^b 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.



4. Energy consumption^a

4.1 Energy consumption (GWh, base units of kWh) ●

Definition Energy consumption from activities within bp's operational control boundary. The energy reported in this metric is the underlying global energy consumption used to calculate GHG emissions excluding flared and vented hydrocarbons. Although these excluded sources reflect loss of energy resources, they do not reflect energy use required for production or manufacturing of products.

The total, global energy consumption is reported with two supporting metrics as required for UK Streamlined Energy and Carbon Reporting (SECR):

- I. UK and offshore energy consumption.
- II. Global (excluding UK and offshore) energy consumption.

Scope Reporting period 1 January to 31 December 2024.

The scope of energy consumption data reported covers bp's operational control boundary, which comprises:

- bp operated assets (which include unmanned assets such as wellheads and pipelines where bp workforce are not present on a day-to-day basis, where these are operated by bp).
- Company owned and operated retail sites.
- Vessels for which bp holds the International Safety Management Document of Compliance (DOC).
- Road vehicles, aircraft and rail transportation that are dedicated to bp's business use (this includes vehicles contractually dedicated or leased to exclusive business use for bp operated entities).
- Contractor drilling activities conducted on behalf of businesses under bp operational control.
- Pending handover of field or asset operations, sites and assets where following divestment, bp no longer has an equity interest but maintains day-to-day operations pursuant to a contractual arrangement.
- Leased offices over 50,000 ft² (reporting units may estimate data if not available from office lessor).

The scope of reporting aligns with requirements for reporting energy consumption as required for SECR.

Read more in the *bp Annual Report 2024*, page 40.

Units GWh, base units of kWh.

Method bp's operating management system (OMS)★ provides a single framework for managing bp's operating activities and includes standards, procedures and guidance which set out bp's requirements for the GHG and energy data submission, approval, and review processes.

Data is required to be submitted into the bp group reporting tool, OneCSR in accordance with the bp OMS requirements, broadly based on the GHG Protocol Corporate Standard and the Ipieca Petroleum Industry Guidelines for Reporting Greenhouse Gas Emissions 2nd Edition, May 2011.

The responsibility for calculating and submitting energy consumption data to be used for reporting is assigned to individual bp facilities and business departments, which are termed reporting units (RUs). RUs submit a quarterly breakdown of energy data directly into OneCSR.

OMS also sets out the methodologies used for reporting energy data. These methodologies include the option to use estimates based on a hierarchy of preference for environmental performance data calculations as noted in OMS.

Data is provided by fuel type and includes electricity, steam, natural gas, diesel, propane, kerosene, gasoline/petrol, petrochemical residues, residual fuel oil, coke and biomass (biogas, biodiesel, ethanol). Data is either reported in units of energy or as fuel use in units of mass, using metered data where available. Where fuel use is reported in units of mass, it is converted into units of energy in OneCSR using conversion factors defined in bp Statistical Review of World Energy (now Energy Institute Statistical Review of World Energy).

The RUs follow a formal energy data submission sign-off process and are responsible for ensuring that the data has been reported in accordance with our requirements.

Once submitted, the energy data is reviewed at corporate level by subject matter experts.

To facilitate publication of data – including in the *bp Annual Report and Form 20-F 2024* and the *bp Sustainability Report 2024*, we use a cut-off date of 31 January to allow for verification and internal and external limited assurance prior to reporting. After this date, subject to bp verification, published values are only changed in line with our restatement policy.

Source Energy consumption data are submitted into the group reporting tool, OneCSR by the RUs, reviewed at corporate level by subject matter experts and the metric is independently assured for use in external reporting.

^a Some recently acquired entities have been granted a deviation from the requirements of bp's operating management system (OMS)★ for an initial transitional period. As a result, some of those entities may not have entered data into OneCSR for 2024 in accordance with bp's OMS requirements. For FY2024 reporting period this relates to TravelCenters of America, and as a result its Scope 1 and 2 GHG emissions have been calculated for the purposes of inclusion within bp's net zero operations figures by extrapolating actuals from a prior year representative year data provided by TravelCenters of America.

★ See the glossary in the *bp Sustainability Report 2024* [pages 46-47](#)



5. Net zero production★

5.1 Emissions from the carbon in our upstream oil and gas production★ (MtCO₂)

Definition Calculated carbon dioxide (CO₂) emissions from the assumed stoichiometric combustion of upstream★ production of crude oil, natural gas and natural gas liquids (NGL), based on bp's net share of production, excluding bp's share of Rosneft production^a.

These emissions are equivalent to the GHG Protocol, Scope 3, category 11, within the selected boundary of bp's net share of upstream production of oil and gas.

The CO₂ emissions from the carbon in upstream oil and gas production is calculated as follows:

$$\text{Carbon in upstream production} = \sum_i (\text{Mass of CO}_2 \text{ emissions})_i$$

Where:

i corresponds to the production phase (i.e., crude oil, natural gas or NGL). The mass of CO₂ emissions is calculated as follows:

$$\text{Mass of CO}_2 \text{ emissions} = \text{Produced volume} \times \text{Density} \times \frac{\text{Cwt}\%}{100} \times \frac{44}{12}$$

Where:

Produced volume is the volume of bp's net share of production of crude oil, or natural gas or NGL, as reported in the bp's stock exchange announcement February 2025 and *bp Annual Report and Form 20-F 2024*.

Density is the density of crude oil, or natural gas or NGL, based on global average factors described in the Energy Institute Statistical Review of World Energy (72nd edition).

Cwt% is the carbon content of crude oil, or natural gas or NGL, based on assumed stoichiometric descriptions for gas and NGL, and on crude oil data from the Oil Production Greenhouse Gas Emissions Estimator (OPGEE), v2.0c, published May 2022.

44/12 is the ratio of molecular weight of CO₂ (44) to atomic weight of carbon (12).

Scope	Reporting period 1 January to 31 December 2024. Based on bp's net share of production volumes of crude oil, natural gas and NGLs, excluding bp's share of Rosneft production ^a .
Units	MtCO ₂ .
Method	The calculation is performed by the bp strategy, sustainability & ventures (SS&V) carbon ambition team. If errors in input data or calculations that underpin net zero production are identified after year end reporting, which lead to a difference exceeding the thresholds described in our net zero production accounting policy, those numbers are restated for the relevant year or years in the next reporting period. The restatement policy also applies to the 2019 baseline year. The 2019 baseline figure is not restated to reflect acquisitions or divestments in subsequent years. We apply the same approach to both organic and inorganic investment.
Source	The bp net share of production volumes (as defined in the <i>bp Annual Report 2024</i> and stock exchange announcement) are the same as in the stock exchange announcement and data published in the <i>bp Annual Report and Form 20-F 2024</i> .

★ See the glossary in the *bp Sustainability Report 2024* [pages 46-47](#)

^a 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).



6. Net zero sales★

6.1 Average carbon intensity of our sold energy products★^a

Definition Rate of GHG emissions estimated on a lifecycle basis from the use, production, and distribution of sold energy products per unit of energy (MJ) delivered. For this purpose, lifecycle covers the 'well-to-wheel' emissions of fuel products and the 'well-to-wire' emissions of power products and excludes embodied emissions from capital goods and assets.

See Figure 1 in the appendix on **page 17** for further detail on the lifecycle basis used in net zero sales.

Scope Reporting period 1 January to 31 December 2024.

bp reports the average carbon intensity of our sold energy products, as a weighted average across all categories and provides a breakdown by four key product categories: oil/refined products, gas/natural gas liquids (NGL), bioproducts^b and power/heat.

Energy product

An energy product for the purposes of net zero sales is considered as one of the following:

- A product that provides energy^c in its end use case^d (such as crude, gasoline, power or biogas). Where applicable the volume of these products that is used^e as a feedstock for non-energy purposes will be excluded from the metric (such as crude to bitumen or naphtha to plastics).
- A product that is emissive in its end use case (e.g., anode petcoke).
- A product which is deemed to be a potential future energy vector (but may not be primarily used for energy purposes at the time of first production or sale). For bp this is deemed to be green hydrogen★, blue hydrogen, green ammonia and blue ammonia.

Scope cont.

Volume of sold energy products★

For the purposes of net zero sales, the volume of sold energy products in a given calendar year is assessed at three gates in the value chain:

- Primary energy gate (Production)
- Secondary energy gate (Processing/Generation)
- Final energy gate (Sales to end users^f)

For each commodity group, the gate with the largest energy product volume produced or sold in a calendar year will be used as the volume of sold energy products in the net zero sales carbon intensity calculation^g.

Commodity groups for net zero sales:

- Oil/Refined products
- Gas/NGLs
- Biofuels
- Biogas
- Power/Heat

Primary energy gate (production)

For the purposes of the net zero sales metric, the primary energy gate contains the production of crude oil, natural gas and NGLs, and is based on bp's net share of production, excluding bp's share of Rosneft production^h.

Energy crop production is also included in the primary energy gate but is not relevant at this time, as bp does not currently produce a crop which, for the purposes of the net zero sales metric, is primarily utilized for energy purposes on an industry average basis.

^a When we say "our sold energy products" we mean, sales by a bp group subsidiary, joint operation or bp equity accounted entity (EAE).

^b Bioproducts contains both biofuels and biogas.

^c For the purposes of net zero sales, we consider a product that provides energy 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.

^d End use is the utilization of a product after which the product is no longer usable or has become waste (e.g. combustion of hydrocarbons to CO₂).

^e The processing of a product to produce another product for further use.

^f For the purposes of the net zero sales metric, the final energy gate contains sales of energy products to end users, including those which bp has deemed likely to utilize the product for its end use purpose, after which the product is no longer usable or has become waste. Depending on the specifics of a particular transaction, it may also include other types of sales, for example, onward sales to an end user under a bp brand. The approach to determining whether or not the sale of an energy product is within the final energy gate is determined based upon the specific commodity, business and transaction involved and is, in some cases, a best estimate.

^g This approach is based on a Net volume accounting methodology guided by the 2016 Ipieca oil & gas sectoral guidance for Scope 3 reporting.

^h 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).

6 Net zero sales

Scope cont.

Secondary energy gate (processing/generation)

For the purposes of the net zero sales metric, the secondary energy gate contains bp's net share of:

- Refinery throughput
- LNG production
- Bio refining
- Biogas processing
- Power and Heat generation

Final energy gate (sales to end users)

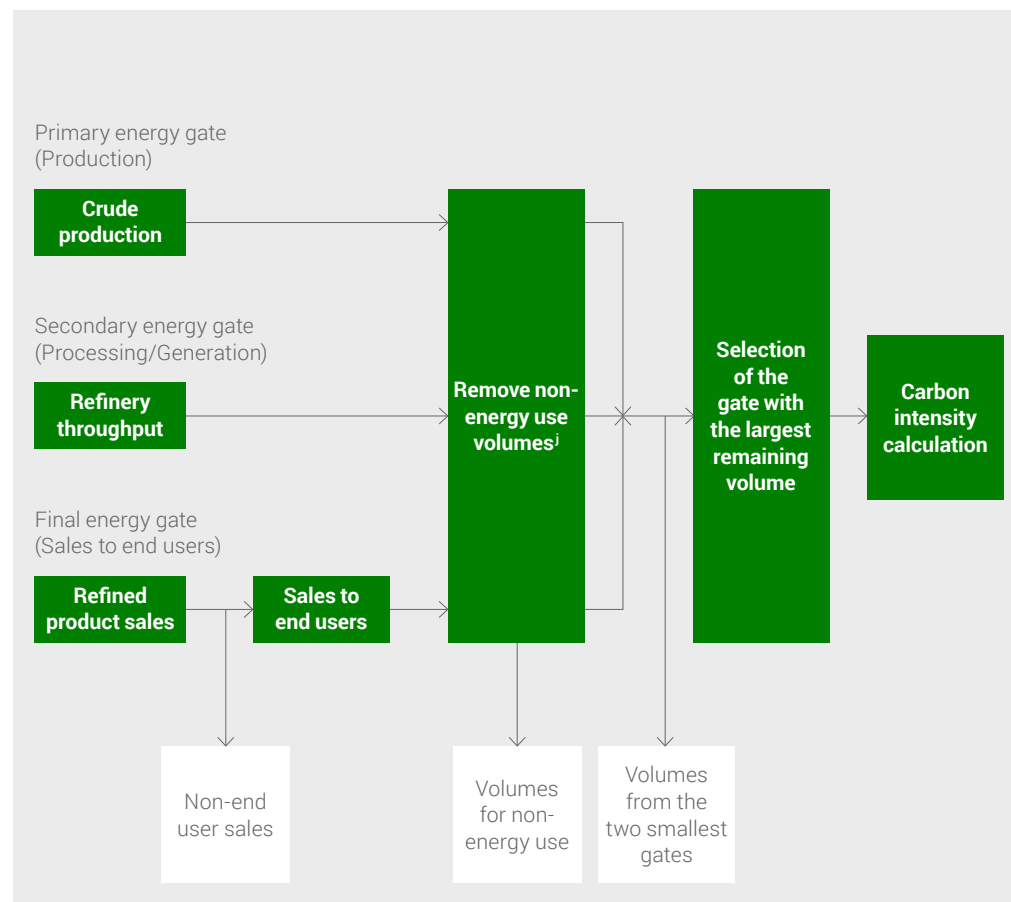
For the purposes of the net zero sales metric, the final energy gate contains sales of energy products to end users, including those which bp has deemed likely to utilize the product for its end use purpose, after which the product is no longer usable or has become waste. Depending on the specifics of a particular transaction, it may also include other types of sales, for example onward sales to an end user under a bp brand. The approach to determining whether or not the sale of an energy product is within the final energy gate is determined based upon the specific commodity, business and transaction involved and is, in some cases, a best estimate.

Sales by BP p.l.c. or a bp group subsidiary (i.e. fully consolidated entities) are considered on a 100% basis, sales by a bp joint operation (including JOLEs) are considered on the basis of bp's contractual rights to the sales and sales by a bp equity accounted entity (EAE) are considered on a bp equity share basisⁱ.

For the purposes of net zero sales, intercompany sales (sales between two group subsidiaries) are not included and EAEs are treated as third parties.

Scope cont.

Example of defining Oil/refined products volume for net zero sales carbon intensity calculation



ⁱ Energy product sales do not include sales by Rosneft. On 27 February 2022 the bp board announced that bp intends to exit its 19.75% shareholding in Rosneft Oil Company (Rosneft).

^j For a product that provides energy in its primary end use case, the volume that is used as a feedstock for non-energy purposes will be excluded from the metric (e.g., crude to bitumen, naphtha to plastics etc.)



6 Net zero sales

Scope cont.

Energy product list

For the 2024 reporting period, sold energy products include the following:

Gas/NGLs:

- Liquefied natural gas (LNG)
- Pipeline gas
- Natural gas liquids (NGLs)
- Compressed natural gas (CNG)

Oil/Refined products:

- Gasoline
- Diesel
- Aviation fuels, including kerosene
- Fuel oil
- Petroleum coke
- Other middle distillates, including gas oil and heating oil
- Naphtha
- Crude oil
- Fossil – methyl tertiary butyl ether (MTBE)
- Liquefied petroleum gas (LPG)

Biofuels:

- Ethanol (including ethanol from our biofuel business in Brazil)
- Biodiesel/Fatty acid methyl ester (FAME)
- Hydrogenated vegetable oil (HVO)
- Sustainable aviation fuel (SAF)/Biojet
- Bio-naphtha
- Ethyl tertiary butyl ether (ETBE)^k
- Bio-methyl tertiary butyl ether bio-MTBE^k

Biogas:

- Biogas
- Bio-CNG

Power/Heat:

- Renewable power generation (solar, wind, biopower, geothermal etc.)^l
- Environmental attribute certificate (EAC) power (EV, utility, retail)^m
- Residual grid power (EV, utility, retail)
- Power and steam sales associated with bp assets (for example, from refineries)
- Thermal power generation (Fossil and Bio)^l

Units gCO₂e/MJ.

Method

The average carbon intensity (gCO₂e/MJ) of bp's sold energy products is calculated as follows:

$$\text{Average carbon intensity} = \frac{\sum_i (\text{Carbon intensity})_i \times \text{Energy}_i}{\sum_i \text{Energy}_i}$$

Where:

(Carbon intensity)_i is the carbon intensity of energy product *i*.

Energy_i is the energy of sold product *i*.

Gas/NGLs, oil/refined products, biofuels and biogas

For gas/NGLs, oil/refined products, biofuels and biogas, the methodology applied covers the lifecycle emissions on a 'well-to-wheel' basis (i.e., from extraction/feedstock production to end use). The carbon intensity of our sold Gas/NGLs, oil/refined products, biofuels and biogas is calculated as follows:

$$(\text{Carbon intensity})_i = \frac{(\text{WTT emissions})_i + (\text{End use emissions})_i}{\text{Energy}_i}$$

Where:

(WTT emissions)_i is the well-to-tank emissions of energy product *i*, calculated based on average industry carbon intensity factors.

(End use emissions)_i is the end use carbon emissions of energy product *i*. For bioproducts (except ETBE/bio-MTBE^k which includes fossil carbon), the end use carbon emissions are accounted for as zero. For gas and refined products, the end use carbon emissions are calculated assuming 100% stoichiometric conversion of elemental carbon to carbon dioxide (CO₂).

Energy_i is the energy of sold product *i*, calculated based on the net calorific value of the product.

Industry standard factors, such as carbon intensity factors, are applied for each energy product's value chain. Industry factors are taken from a combination of the latest industry publications, including publications by the JRC-Eucar-Concawe (JEC), DEFRA, California Air Resources Board (CARB), European Parliament and the Council of the European Union. This means that the basis of the emissions can vary by product.

^k Ethyl tertiary butyl ether (ETBE) and bio-MTBE are considered a bioproduct, but the calculation of lifecycle emissions includes the fossil component.

^l Power directly associated with a generation asset.

^m Grid power associated with retired environmental attribute certificates (EACs).

6 Net zero sales

Method cont.

Power/heat

For power/heat the methodology applied covers the lifecycle emissions on a 'well-to-wire' basis (from extraction/feedstock production to transmission and distribution). The carbon intensity of our power products is calculated as outlined below and adopts a fossil fuel equivalence methodology.

$$(\text{Carbon intensity})_i = \frac{(\text{CO}_2\text{e emissions})_i}{(\text{Fossil equivalence of sold energy})_i}$$

Where:

(CO₂e emissions)_i is determined based on the sold/exported power product *i* and lifecycle residual grid factor or lifecycle renewable emission factor (for solar/wind/bio-power etc.), with emission factors defined using industry standard factors from references including the IEA, AIB, JEC etc.

(Fossil equivalence of sold energy)_i is determined by applying a fossil equivalence factor to the sold/exported power/heat *i*, before the inclusion of transmission and distribution losses (see IEA), based on conversion efficiencies described in the *bp Energy Outlook*.

Aggregate lifecycle emissions associated with sales of energy products

Aggregate lifecycle GHG emissions associated with sales of energy products, as determined in the calculation of the average carbon intensity of our sold energy products.

Aggregate energy associated with sales of energy products

Aggregate energy associated with sales of energy products, as determined in the calculation of the average carbon intensity of our sold energy products, with power/heat represented as fossil equivalence of sold energy.

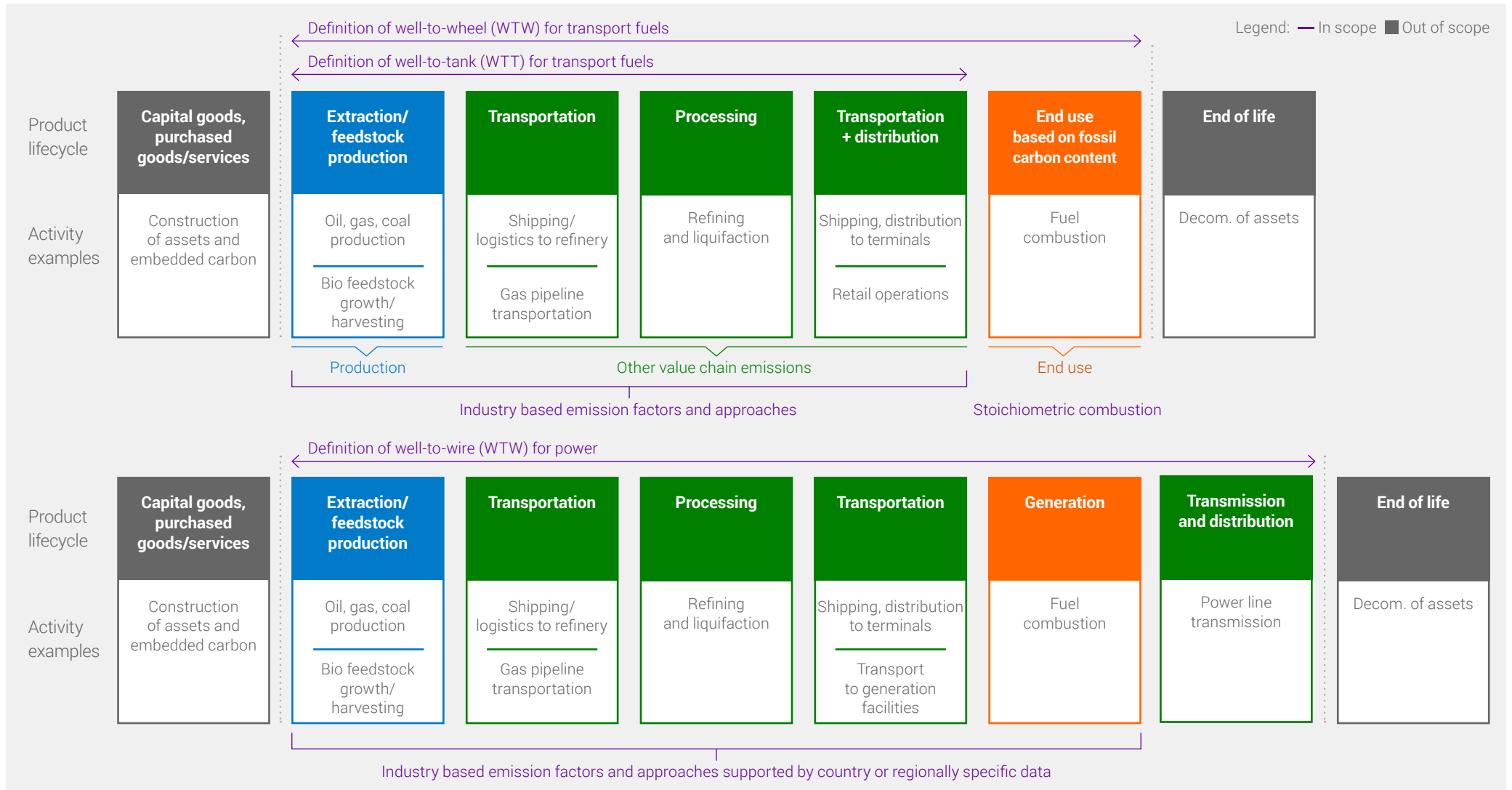
If errors in input data or calculations that underpin net zero sales are identified after year end reporting, which lead to a difference exceeding the thresholds described in our net zero sales accounting policy, those numbers are restated for the relevant year or years in the next reporting period. The 2019 baseline figure is not restated to reflect acquisitions or divestments in subsequent years. We apply the same approach to both organic and inorganic investment.

Source

The calculation is performed by the bp strategy, sustainability & ventures (SS&V) carbon ambition team.

Appendix

Figure 1 lifecycle basis used for sold energy products★



Give your feedback

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