



Energising today
Advancing tomorrow

Energising today, advancing tomorrow: As the world moves towards a low-carbon economy, we are focused on supporting the energy needs of today whilst investing in our portfolio of transition-enabling commodities to support the low-carbon economy.

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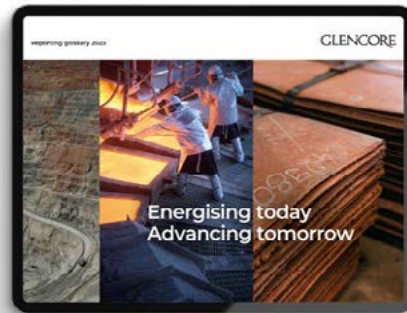
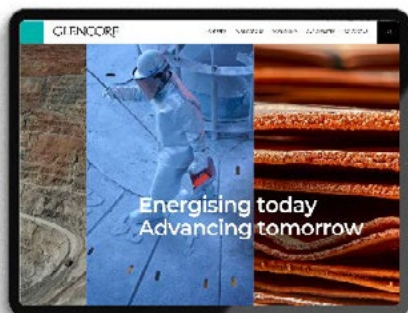
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Explore our Group Reporting Glossary online at: [glencore.com/publications](https://www.glencore.com/publications)

Introduction

Purpose and terminology

The purpose of this document is to provide information about the definitions and underlying processes applied for the collection and verification of specific Environmental, Social and Governance (ESG) key performance indicators (KPIs).

These KPIs have been subject to independent Limited Assurance under the ISAE 3000 (Revised) Standard by Deloitte LLP as disclosed in the Glencore Annual and Sustainability Reports 2023 ('the Reports'), and the Glencore ESG Data Book. The Reports and the Glencore ESG Data Book are available online at glencore.com/publications.¹

Unless stated otherwise in this document, reference is made to the Group Reporting Glossary available at glencore.com/publications for the 2023 reporting suite with respect to the terms used in this document.

Boundaries and scope of our ESG KPIs

The KPIs considered in this document are based on information and data from our industrial and marketing activities which cover health & safety, environment, social performance and human rights ('HSEC&HR'). Performance under each of these KPIs is subject to Limited Assurance under the ISAE 3000 (Revised) Standard by Deloitte LLP.

We have established specific organisational and operational boundaries to delineate the data and information which will be considered to measure performance in respect of the KPIs.

Organisational boundaries

For our industrial assets where we have operational control, i.e. where Glencore directly or indirectly controls and directs the day-to-day management and operation of the entity engaging in such activity, whether by contract or otherwise, we report our data on a 100% basis, irrespective of our actual equity share.²

Interests held in joint ventures where we do not have operational control are excluded from these selected KPIs that are subject to Limited Assurance under the ISAE 3000 (Revised) Standard by Deloitte LLP.

Finally, we also exclude data and information in respect of investment and holding companies.

¹ We aim to publish the Glencore Sustainability Report 2023 and Glencore ESG Data Book in May 2024.

² For the purposes of all health and safety and environment KPIs discussed in this document except for Scope 3 emissions, we also include data from industrial operations where extraction, production or processing of metals and minerals and energy products for sale or further processing has ceased, from industrial operations that are on care & maintenance, from industrial projects or exploration activities where such production or processing has not commenced, from warehouses, terminals, and ports as well as from other industrial operations that are not involved in such extracting, producing or processing that are under our operational control.

Operational boundaries

For certain industrial offices located off-site, our environmental data is limited to actual environmental incidents classified in terms of severity as category 3 or higher as we consider their contribution to the relevant KPIs to be sufficiently small so as to be immaterial.

For the pastoral assets held by our industrial assets we exclude the CO₂e emissions and other environmental data associated with our livestock as we consider their contribution to the relevant KPIs to be sufficiently small so as to be immaterial.

Certain warehouses, terminals and ports do not report data on water input and water output as we consider their contribution to these KPIs to be sufficiently small so as to be immaterial.

Our corporate and marketing offices do not report on health & safety or environmental data, except for actual environmental and health & safety incidents classified in terms of severity as category 3 or higher or as category 4 or 5, respectively, as we consider their contribution to the relevant KPIs to be sufficiently small so as to be immaterial.

We do not include Scope 3 CO₂e emissions related to third-party volumes traded by our marketing business in our CO₂e emissions reporting (for exceptions unrelated to the KPIs considered in this document, refer to the About our emissions calculation and reporting section in our Annual Report 2023).

We do, however, report on the amount of payments made to governments in respect of the marketing business' performance.

Reporting period

The Reports contain data for the full reporting year. Acquisitions are only included if they were integrated before 1 July in the reporting year, except that with respect to CO₂e emissions and energy consumption from our industrial assets acquired since the baseline date and falling within the organisational boundary, the data has been added to the CO₂e emissions and energy profiles respectively, including to our 2019 baselines.

Data from divestments is included until the calendar month before disposal, except that CO₂e emissions and energy consumption from the industrial assets we sold, which were previously within the organisational boundary, are removed from the relevant 2019 baselines for subsequent reporting periods.

Introduction *continued*

Data processing methodology in general

Glencore's internal reporting systems capture and retain the ESG data presented in the Reports. The metrics in the Reports reflect those used in the commodity markets, and sectors in which we operate and are primarily based on the Global Reporting Initiative (GRI).³

In some instances, we have restated figures from previous years to reflect improvements in our data collection, analysis, and validation systems. In case of material restatements, we provide explanations regarding the revised data in the Reports. Most notably, for the year ending 2023, we have restated our 2019 baseline industrial CO₂e emissions and energy data (given its close connection to CO₂e emissions), and the relevant changes are explained in the About our emissions calculations and reporting section of the Annual Report 2023. Further, we have changed the method on how we report our water input and water output as explained in the Sustainability section of the Annual Report 2023. Deloitte LLP has not undertaken work to review accuracy and completeness for restated ESG data for previous reporting years and has not provided assurance for restated ESG data.

All ESG metrics stated in the Reports represent the latest available data, unless referenced otherwise in the text. Some of the totals shown may reflect the rounding up or down of subtotals.

Glencore seeks to report on every actual HSEC&HR-related incident in the period when it occurs. Occasionally, our incident reporting may take place later due to an improved understanding of the incident or revisions to its classification. Where this results in a correction of previously reported ESG data, we will publicly disclose the correction and its rationale.

We may change our approach to how we report our ESG data in future Reports without prior announcement; we may also change the reporting of specific ESG data and its interpretation. We will provide relevant explanations in our Reports in case any such changes are material.

Unless otherwise stated in this document, all ESG data forming the basis of our KPIs needs to be reported in the Glencore HSEC&HR Database on a monthly (actual health & safety incidents, environmental incidents, social performance and human rights incidents) or quarterly basis (environmental data such as energy consumption, data underlying our Scope 1 and 2 CO₂e emissions, water input and output). The recording of ESG data follows a workflow usually involving the initial entry of the data, the review of the entered data and its verification. The different steps of the workflow are usually completed by different individuals. Glencore's Group HSEC&HR team applies additional quality control processes, beyond the assurance by our external assurance provider. The scope and limitations of Deloitte LLP's assurance are set out in their unqualified report on page 295-297 of the Annual Report.

³ Due to confidentiality restrictions under applicable local laws, our industrial assets may be unable to access the level of evidence in underlying documentation generally required to validate the classification of a health & safety incident in accordance with our Incident Management Procedure.

Health and safety

Fatalities

Definition

A fatality is a death of a worker resulting from an injury as a result of a work-related incident or an occupational disease.

Fatalities as a result of occupational injuries and diseases are differentiated in our Glencore HSEC&HR Database.

Units

Number of fatalities resulting from an injury as a result of a work-related incident or an occupational disease.

Method

In addition to the general data processing methodology described in the Data processing methodology in general section, any death of a worker linked to Glencore needs to be internally investigated and the classification is reviewed and assessed by both our Incident Review Committee (IRC)⁴ and the Board Health, Safety, Environment, Community (HSEC) Committee and is ultimately approved by the Board HSEC Committee.

Hours worked

Definition

Hours worked means the total number of hours worked by workers carrying out work-related activities during the recording period. Hours worked includes overtime (where recorded) and training but excludes annual leave, parental leave, sick leave, public holidays, and other authorised absences.

Units

Number of hours worked by workers.

Method

Refer to the Data processing methodology in general section regarding the overall data processing methodology applied for our KPIs.

Lost time injuries (LTIs)

Definition

An LTI is an occupational injury that is recorded when a worker is unable to work following a work-related incident.

We record lost days as beginning on the first rostered day that the worker is absent after the day of the work-related injury. The day of the work-related injury is not included. LTIs do not include restricted work injuries (RWIs) and fatalities.

Units

Number of work-related LTIs of workers.

Method

Refer to the Data processing methodology in general section regarding the overall data processing methodology applied for our KPIs.

Lost Time Injury Frequency Rate (LTIFR)

Definition

The LTIFR is the total number of LTIs recorded in the reporting period compared to the total hours worked:

$$\text{LTIFR} = \text{LTIs}/\text{hours worked} * 1,000,000$$

Units

Number of LTIs per million hours worked.

Method

The LTIFR is calculated by the Glencore HSEC&HR Database based on the reported number of LTIs and the hours worked.

Refer also to the Data processing methodology in general section regarding the overall data processing methodology applied for our KPIs.

⁴ The IRC is comprised of the Head of Industrial Assets, the General Counsel, the Head of HSEC&HR and the relevant HSEC&HR General Managers.

Health and safety *continued*

Medical treatment injuries (MTIs)

Definition

An MTI is an occupational injury not classified as an LTI or RWI, which requires treatment beyond first aid.

Medical treatment is defined as occurring when an injury requires a higher degree of patient management to ensure a full recovery.

Units

Number of work-related MTIs of workers.

Method

Refer to the Data processing methodology in general section regarding the overall data processing methodology applied for our KPIs.

Restricted work injuries (RWIs)

Definition

An RWI is a work-related injury which causes a worker to be physically or mentally unable to perform all, or part of, their normal duties or role (i.e., routine work functions) during any rostered shift subsequent to that on which the work-related injury occurred.

Units

Number of work-related RWIs of workers.

Method

Refer to the Data processing methodology in general section regarding the overall data processing methodology applied for our KPIs.

Total recordable injuries (TRIs)

Definition

Total recordable injuries (TRIs) are the sum of fatalities, lost time injuries (LTIs), restricted work injuries (RWIs) and medical treatment injuries (MTIs). The metric represents all injuries that require medical treatment beyond first aid.

Units

Number of work-related TRIs of workers.

Method

Refer to the Data processing methodology in general section regarding the overall data processing methodology applied for our KPIs.

Total Recordable Injury Frequency Rate (TRIFR)

Definition

The TRIFR is the total number of TRIs recorded in the reporting period compared to the total hours worked:

$$\text{TRIFR} = \text{TRIs}/\text{hours worked} * 1,000,000$$

Units

Number of TRIs per million hours worked.

Method

The TRIFR is calculated by the Glencore HSEC&HR Database based on the reported number of TRIs and the hours worked.

Refer also to the Data processing methodology in general section regarding the overall data processing methodology applied for our KPIs.

Environment

Number of major (category 4) and catastrophic (category 5) environmental incidents

Definition

An actual environmental incident is any event that causes damage or loss to the environment, including spills containing contaminants or non-compliant disposal of waste, discharges, and abstractions, gaseous or particulate emissions to the atmosphere, subsidence or sink holes, harm to biodiversity and rehabilitation/land, as well as harm as a result of noise, odour, blast or vibration.

We classify the severity of environmental incidents on a five-point scale:

- Category 1: negligible
- Category 2: minor
- Category 3: moderate
- Category 4: major
- Category 5: catastrophic

We consider incidents occurring on or off-site, with widespread, but reversible, environmental impact to ecosystems, habitats, or species (2 to 10 years to remediate) as major environmental incidents, and unconfined and widespread incidents, with widespread environmental impact to ecosystems, habitats, or species (irreversible, or >10 years to remediate) as catastrophic environmental incidents.

Units

Number of major and catastrophic environmental incidents.

Method

In addition to the general data processing methodology described in the Data processing methodology in general section, actual environmental incidents classified as category 3 or higher are required to be investigated internally. The classification of category 4 and 5 environmental incidents is reviewed and assessed by both our IRC⁵ and the Board HSEC Committee and is ultimately approved by the Board HSEC Committee.

Refer also to the Data processing methodology in general section regarding the overall data processing methodology applied for our KPIs.

⁵ The IRC is comprised of the Head of Industrial Assets, the General Counsel, the Head of HSEC&HR and the relevant HSEC&HR General Managers.

Direct and indirect energy consumption

Definition

Direct energy

Primary energy used by our industrial assets including energy generated by combustion in our boilers, furnaces, and vehicles. Sources include coal, coke, diesel, gasoline, biomass, biodiesel, fuel oil, jet fuel, kerosene, LPG, naphtha, natural gas, propane, and electricity generated from renewable sources and coal seam emissions or electricity recovered on-site or off-site and supplied via an exclusive, direct physical link.

Indirect energy

Secondary energy used by our industrial assets which are generated and supplied by third parties. This includes electricity, steam, and heat/cooling. Where our industrial assets are supplied with energy from another of our industrial sites (within our organisational boundary of operational control) via a wider grid rather than an exclusive, direct physical link, we account for this as indirect energy.

Units

Petajoules

Method

Energy-related data is entered by our industrial assets based on the Glencore Emissions and Energy Reporting Procedure.

This requires the reporting of the activity data (i.e., quantity consumed) while the energy related to the consumed fuels is automatically calculated by the Glencore HSEC&HR Database based on the net calorific values provided by the IPCC.⁶

Refer also to the Data processing methodology in general section regarding the overall data processing methodology applied for our KPIs.

⁶ 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 2, Energy, Chapter 1

Environment *continued*

Scope 1, 2 and 3 emissions – general

Our CO₂e emission reporting of our industrial assets generally follows the GHG Protocol's Corporate Accounting and Reporting Standard, the Scope 2 Guidance, the Corporate Value Chain (Scope 3) Accounting & Reporting Standard and Technical Guidance for Calculating Scope 3 Emissions, and the ICMM Scope 3 Emissions Accounting and Reporting Guidance. Our approach is set out in our new Emissions and Energy Reporting Procedure (EERP).

Our CO₂e emissions include CO₂, CH₄ and N₂O. Other GHGs are not included, pursuant to our most recent materiality assessment, which concluded that their contribution to the overall CO₂e emissions of our industrial assets is sufficiently small so as to be immaterial in the context of our industrial CO₂e emissions profile.⁷

Our CO₂e emissions are converted based on the IPCC's Sixth Assessment Report, 2021 (AR6), GWP values for 100-year time horizon, where the granularity of the published emission factors allows such a conversion, except for certain CO₂e emissions from the extraction of coal and decommissioned coal mines, which still apply the GWPs from the IPCC's Fifth Assessment Report (AR5).⁸

Refer also to the Data processing methodology in general section regarding the overall data processing methodology applied for our KPIs.

For further information on how we calculate and report our CO₂e emissions, refer to the About our emissions calculations and reporting section in our Annual Report 2023.

⁷ We last performed the relevant materiality assessment in 2015/2016. We originally intended to update this assessment in 2023, however, we have postponed this work to update the materiality assessment as part of a wider, revised approach to assessing materiality in line with impending obligations under future reporting requirements.

⁸ We intend to complete the conversion for these CO₂e emissions to the GWPs of the AR6 in 2024.

Scope 1 emissions

Definition

CO₂e emissions generated by the industrial assets (i.e., direct CO₂e emissions) under our operational control, including those stemming from the following activities:

- Stationary combustion (such as boilers and generation plants, and including flaring if relevant)
- Mobile combustion (such as vehicles, drilling and hauling plant and equipment)
- Process emissions (such as vented CO₂ or methane, emissions from roasting of calcium carbonate, or use of reductants); and
- Fugitive emissions (uncontrolled emissions such as coal seam emissions).

By source, our Scope 1 emissions include the following at our industrial assets:

- CO₂e emissions from consumption of fossil fuels, including coal and coke as solid fossil fuels, diesel, and other oil products as liquid fossil fuels, as well as natural gas, refinery gas and other gas-based fossil fuels as gaseous fossil fuels;
- CO₂e emissions from consumption of reductants, i.e., carbon-based materials, for the chemical reduction of metal oxides;
- CO₂e emissions from fossil fuel extraction, i.e., coal seam emissions from the production of coal, which primarily represent a mix of methane and CO₂:
 - Coal seam emissions from our underground coal industrial assets, primarily involving methane;
 - CO₂e emissions from open pit mining as well as from stockpiling coal prior to its sale; and
 - CO₂e emissions from decommissioned/closed coal mines; and
- Other direct CO₂e emissions include those not covered in the above, directly caused by process activities (e.g., CO₂e from the use of recyclable materials or carbonates).

Units

Million tonnes of CO₂e

Method

Our Scope 1 emissions-related data is entered into our Glencore HSEC&HR Database by our industrial assets based on the Glencore Emissions and Energy Reporting Procedure. Depending on the indicator, the Scope 1 emissions are either entered as activity data (i.e., quantity of consumed fuels) and automatically converted into Scope 1 emissions by the Glencore HSEC&HR Database, or directly entered as Scope 1 emissions by the relevant industrial assets (e.g., coal seam emissions, CO₂e emissions related to processes that are not covered elsewhere).

The applied emission factors are primarily based on the IPCC and the related GHG Protocol as shown in Appendix 1.

Environment *continued*

Scope 2 emissions – general

Scope 2 emissions are indirect CO₂e emissions associated with the generation of purchased electricity, steam, and heat/cooling (Purchased Power) which is consumed by the industrial assets under our operational control. These CO₂e emissions are considered indirect as they are a consequence of our industrial assets' activities but are emitted at sources outside our organisational boundary, i.e., third-party electricity generators or utilities.

Scope 2 emissions cover the CO₂e emissions from the generation of Purchased Power which is consumed by our industrial assets. Other upstream CO₂e emissions associated with the third-party production and processing of upstream fuels, and the transmission and distribution of energy within a grid, are considered Scope 3, category 3 emissions. CO₂e emissions from energy generation at our industrial assets with an exclusive, direct physical link to our industrial assets are accounted for in our Scope 1 emissions. Where our industrial assets are supplied with electricity from energy generation at another of our industrial sites (within our organisational boundary of operational control) via a wider grid, we account for them as Purchased Power.

Calculating Scope 2 emissions requires a method of allocating the CO₂e emissions created by the generation of the Purchased Power to the end consumers of a given grid. Two methods are used as further explained below:

- Location-based method; and
- Market-based method.

While the emission source underlying each Scope 2 method is the same, the differential between location-based and market-based accounting is the emission factor used to quantify emissions from the generation of Purchased Power consumed.

Scope 2 emissions – location-based

Definition

The location-based method applies the average CO₂e emissions intensity of grids on which the consumption of Purchased Power physically occurs, regardless of specific qualifying market-based contractual instruments purchased.

This method emphasises the connection between collective consumer demand for electricity and the CO₂e emissions resulting from local electricity generation.

Units

Million tonnes of CO₂e

Method

Scope 2 emissions-related data is entered into our Glencore HSEC&HR Database by our industrial assets based on the Glencore Emissions and Energy Reporting Procedure which requires the reporting of the relevant activity data (i.e., quantity of Purchased Power consumed).

The Scope 2 emissions are automatically calculated by our Glencore HSEC&HR Database, applying the GHG Protocol's location-based approach. For this, the reported Purchased Power data is multiplied by the applicable country-specific grid-emission factors.

For most countries, national grid-emission factors are sourced from the annual 'IEA Emission Factors' publications produced by the International Energy Agency (IEA). For the following countries, regional emission factors are applied as follows:

Region	Source/description
Australia	Australia National Greenhouse Account Factors (NGER)
Canada	Electricity in Canada: Summary and Intensity Tables of Canada's National Inventory submission to UNFCC
USA	eGRID datasets, United States Environmental Protection Agency (US EPA)
New Caledonia	Rapport d'activité 2021 relatif à la mise en oeuvre du schéma pour la transition énergétique de la Nouvelle-Calédonie, Edition 2021, Gouvernement de la Nouvelle Calédonie

We apply the latest versions of the applicable emission factor sources as available at the end of a given reporting year.

Environment *continued*

Scope 2 emissions – market-based

Definition

The market-based method reflects the CO₂e emissions from the generators from which the industrial assets under our operational control contractually obtain Purchased Power bundled with Energy Attribute Certificates (EACs)⁹, or unbundled Purchased Power with EACs on their own, and for which specific emissions factors are known.

Unlike the location-based method, the market-based approach allows for differentiation in Scope 2 emissions calculations if emissions data can be sourced from qualifying contractual instruments. Our new Emissions and Energy Reporting Procedure (EERP) and the GHG Protocol specify that to qualify, renewable power claims must:

- Be based on contractual arrangements between supplier and consumer;
- Be limited to the environmental attributes that have been contractually conveyed;
- Have a direct causal relationship between the purchase of electricity and the claimed environmental attributes;
- Be legally enforceable;
- Be exclusive to the purchasing entity;
- Have a specified start and end date in which renewable energy attributes are valid.

We consider the following qualifying contractual instruments and emissions factors:

- EACs (such as Guarantees of Origin, Renewable Energy Certificates (RECs), or International Renewable Energy Certificate (I-RECs));
- Direct contracts such as power purchase agreements with a specific energy generating unit (PPAs) and contracts from specified sources, where other instruments or EACs do not exist;
- Government-approved green power procurement schemes¹⁰;
- Supplier-specific emission factors; and
- Residual emissions factor i.e., representing the mix of energy generation resources within a defined geographic boundary left after all contractual instruments that are tracked have been claimed/retired/cancelled.

Where contractual instruments do not meet the market-based quality criteria, or where our industrial assets operate in markets where qualifying contractual instruments are not available, we use the location-based emission factors to represent their emissions. For these industrial assets, the calculated market-based Scope 2 emissions are identical to the location-based Scope 2 emissions.

⁹ A contractual instrument used in the energy sector to convey information about energy generation to other entities involved in the sale, distribution, consumption, or regulation of electricity.

¹⁰ In some regions, governments or regulatory bodies establish approved renewable power procurement schemes. These schemes often involve contracts or agreements with renewable energy generators, ensuring the conveyance of specific environmental attributes and supporting reliable claims about emissions reductions.

Units

Million tonnes of CO₂e

Method

Scope 2-related data is entered into our Glencore HSEC&HR Database by our industrial assets based on the Glencore Emissions and Energy Reporting Procedure, which requires the reporting of the relevant activity data (i.e., quantity of Purchased Power consumed).

With regards to the applicable emission factors, our process for the calculation and reporting of market-based Scope 2 emissions follows various steps¹¹:

1. Collect all activity data and emission factor data from contractual instruments meeting the market-based quality criteria. Our industrial assets are required to ensure that they use the most appropriate, accurate, precise, and highest quality instruments available in their respective energy markets.¹²
2. Assign renewable EAC or equivalent activity data to individual electricity consuming industrial assets and multiply by associated emission factor;
3. If the renewable EACs or equivalents do not account for the entire industrial asset's activity data, the remaining portion must be accounted for by considering other contractual instruments that meet the quality criteria from the market-based emissions hierarchy;
4. Multiply the remaining portion of activity data by supplier specific or utility provided emission factors;
5. If supplier specific or utility emission factors are not available, multiply the remaining portion of the activity data by the country or regional residual emission factor;
6. If a residual emission factor is not available for a given country or region, multiply the remaining activity data by country or regional average emission factor (i.e., grid emission factors; refer to Scope 2 emissions – location-based).

Residual emission factors are currently applied for the following regions:

Region	Source/description
Australia	Australian National Greenhouse Accounts Factors, Table 1a Indirect (scope 2 and scope 3) emission factors from consumption of purchased or acquired electricity: market-based factors
Europe	European Residual Mix published by the Association of Issuing Bodies (AIB)
USA	Green-e® Residual Mix Emissions Rates published by the Center for Resource Solutions (CRS)

¹¹ GHG Protocol, Scope 2 Guidance, An amendment to the GHG Protocol Corporate Standard, World Resources Institute, 2015.

¹² We report our market-based Scope 2 emissions based on signed contractual instruments and assume delivery and retirement of the relevant qualifying renewable certificates where compliance periods do not align with Glencore's reporting timeline. If a supplier were to fail to deliver renewable certificates under a PPA or otherwise as per the purchase agreement of an unbundled EAC, a restatement will be made in the following reporting year explaining the divergence.

Environment *continued*

Scope 3 emissions - general

The Scope 3 emissions we report on reflect the sum of the value-chain emissions of our industrial assets that are extracting, producing, or processing minerals and metals and energy products for sale or further processing reported within specific Scope 3 categories.

Of our Scope 3 emissions, our assured KPIs include our Scope 3 emissions from fuel and energy-related emissions not included in Scope 1 or Scope 2 (Scope 3, category 3, including activities A-D), and from the use of sold coal and refined oil products (category 11) as further set out below.

Scope 3 emissions – Fuel and energy related activities (category 3, including activities A-D)

Definition

Scope 3 category 3 refers to the extraction, production, and transportation of fuels and energy purchased or acquired by our industrial assets that are producing or processing commodities, not already accounted for in Scope 1 (fuel use/combustion) or Scope 2 (energy generation). The category is split into four further activities:

Activity A: Upstream emissions of purchased fuels for own use

The upstream (cradle-to-gate) emissions associated with the extraction, production and transportation of fuels purchased and consumed.

Activity B: Upstream emissions of purchased electricity

The upstream (cradle-to-gate) emissions associated with the extraction, production and transportation of fuels consumed in the generation of energy that is purchased and consumed.

Activity C: Transmission and distribution (T&D) losses

Emissions associated with the T&D losses of the Purchased Power consumed. T&D losses are emissions from generation (upstream activities and combustion) of energy that is consumed (i.e., lost) in a T&D system.

Activity D: Generation of purchased electricity that is sold to end users.

Emissions associated with the generation (Scope 2) of Purchased Power sold on to end users.

Units

Million tonnes of CO₂e

Method

Activity data is collected and entered by our industrial assets based on the Glencore Emissions and Energy Reporting Procedure. This requires the reporting of the relevant activity data, i.e.:

- Quantities of purchased and consumed fuels, excluding intercompany sales of coal produced by our industrial assets for activity A
- Quantities of Purchased Power consumed for activities B and C
- Quantities of Purchased Power sold to end users for activity D

Activity A

These CO₂e emissions are calculated by applying the latest available upstream average fuel emission factors and multiplying these by the quantities of each fuel purchased and consumed by our industrial assets. Where: upstream average fuel emission factor = life cycle emission factor – combustion emission factor.

The quantities and types of fuels purchased and consumed by our industrial assets are the same as the activity data used for our Scope 1 emissions fuel calculations but exclude intercompany sales of Glencore-produced coal (as associated upstream emissions are already accounted for in our Scope 1 inventory).

Upstream average fuel emission factors are sourced from third-party data providers Ecoinvent and Ipieca (in kg CO₂e per kg or kg CO₂e per m³).

Activity B

These CO₂e emissions are calculated by applying the country- or region-specific upstream electricity emission factors and multiplying these by the country-specific Purchased Power consumed by our industrial assets. Where: upstream electricity emission factor = life cycle emission factor – combustion emission factor – T&D losses.

The quantities of electricity purchased and consumed by our industrial assets are the same as the data used for our Scope 2 emissions calculations.

Country- or region-specific upstream electricity emission factors are sourced from third-party data provider Ecoinvent (in kg CO₂e per kWh).



Environment *continued*

Activity C

These CO₂e emissions are calculated by applying the latest available country-specific T&D loss rates and multiplying these by the country-specific Purchased Power consumed by our industrial assets.

The quantities of Purchased Power consumed by our industrial assets are the same as the data used for our Scope 2 emissions calculations.

Country-specific T&D loss rates are sourced from the IEA (in kg CO₂e per kWh).

Activity D

These CO₂e emissions are calculated by applying the latest available country-specific grid-emission factor and multiplying these by the quantities of Purchased Power that was resold to end users by our industrial assets.

The quantities of electricity purchased and resold is entered by our industrial assets based on the Glencore Emissions and Energy Reporting Procedure.

The emission factors applied are the same as those used for our location-based Scope 2 emissions calculations.

Scope 3 emissions - Use of sold products (category 11)

Definition

These CO₂e emissions relate to the combustion by our customers of sold coal and refined oil products that our industrial assets produced or processed. We assume that 100% of our sold coal and refined oil products are combusted once received by our customers.

We account for our equity share of emissions related to the use of saleable coal produced by independently managed joint ventures in Scope 3, category 15 (Investments).

Units

Million tonnes of CO₂e

Method

We apply the direct use-phase method to calculate emissions related to the use of sold products. This involves multiplying the sold volumes of thermal coal, metallurgical coal, and refined oil products we produced by the fuel-specific combustion emissions factors provided by the IPCC.¹³

Most of the coal produced by our industrial assets is sold by our marketing business, which also trades coal produced by third parties. Associated data is stored in our commodity trading management systems. Due to the blending and inventory management activities of both our industrial asset and marketing teams, the volumes of coal produced and procured each year do not typically match the volumes of coal sold. To calculate the quantities of our marketing sales of coal produced by our industrial assets, for each reporting year we remove the quantities of third-party procured coal volumes from our total coal sales data (assuming that quantities of third-party coal we procured equal the quantities of third-party coal we sold in a given year). To this calculated total we add any volumes of coal that were sold directly by our industrial assets during the reporting year. For 2023, this amounted to 127Mt of thermal and metallurgical coal sold in total that were produced by our industrial assets. We compare the resulting total to the total coal production by the industrial assets under our operational control (on a 100% saleable basis), with minimal deviations accepted when they fall within the limits of expected inventory changes.

For oil volumes processed in our Astron Energy Refinery we use the volume produced by the Astron Refinery during the reporting period, as the basis of our calculations for category 11, as sales of volumes that were processed by the Astron Energy Refinery cannot be distinguished from third-party volumes traded by our marketing business. Oil is deemed saleable once it does not require further processing before use. For 2023, this amounted to 136'665 billion Btu of processed oil products.

¹³ 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 2, Energy, Chapter 1

Environment *continued*

Water input

Definition

Water input includes water that is withdrawn from the environment (surface water, groundwater, seawater, precipitation, or water that is entrained in ore extracted from the ground) or provided by third parties (this covers supplied potable water and water of lower quality, e.g. treated wastewater that can be used for production purposes).

This category excludes diverted water, which is actively managed (e.g., physically pumped, actively treated, or has material consumptive losses) by our industrial assets but does not enter the operational water system used to supply the operational water demand (i.e., other managed water (OMW) that is not used by our industrial assets in an operational task or activity).

Units

Million m³

Method

Water-related data needs to be reported by our industrial assets in our Glencore HSEC&HR Database, in accordance with the Glencore Environment Standard and Water Reporting Guideline which is aligned with ICMM Guidance.¹⁴

Refer also to section the Data processing methodology in general section regarding the overall data processing methodology applied for our KPIs.

¹⁴ Water Reporting, Good practice guide, 2nd Edition, ICMM, 2021

Water output

Definition

Water output includes water that our industrial assets release back to the water environment (surface water, groundwater, or seawater) or to a third party.

Water output excludes diverted water that is actively managed (e.g., physically pumped, actively treated, or has material consumptive losses) by our industrial assets but does not enter the operational water system used to supply the operational water demand (i.e., other managed water (OMW) that is not used by our industrial assets in an operational task or activity).

Units

Million m³

Method

Water-related data needs to be reported by our industrial assets in our Glencore HSEC&HR Database, in accordance with the Glencore Environment Standard and Water Reporting Guideline which is aligned with ICMM Guidance.¹⁵

Refer also to the Data processing methodology in general section regarding the overall data processing methodology applied for our KPIs.

¹⁵ Water Reporting, Good practice guide, 2nd Edition, ICMM, 2021



Responsible citizenship

Total amount of payments made to governments

Definition

All relevant tax, royalty and levy payments made to the governments of the countries in which we operate based on the boundaries and scope defined in this document, as required by local and national regulation.

This includes local, national, sales and employment taxes, government royalties and licence and permitting fees, reported on a cash-paid basis during the reporting period.

Units

Million USD

Method

Payments to governments data is reported periodically into Glencore's tax reporting system Global Tax Center (GTC) by the industrial assets, corporate and marketing offices within the boundaries and scope defined in this document. Tax types are defined, and reporting principles outlined along with instructions to GTC in distributed guidance documents. Glencore's Corporate Tax Reporting team applies additional quality control processes against this guidance, beyond the assurance given by our external assurance provider.



Additional information

Appendix 1: Greenhouse gas emission factors - Scope 1

Region	Type	GHG	Value	Units	Effective Date	Description
Global	Natural Gas	Carbon Dioxide	56,100	kg GHG/TJ	01/01/2017	GHG Protocol Cross-Sector Tools - Stationary Combustion - (April 2017)
Global	Natural Gas	Methane	5.00000	kg GHG/TJ	01/01/2017	
Global	Natural Gas	Nitrous Oxide	0.10000	kg GHG/TJ	01/01/2017	
Global	Residual fuel oil	Carbon Dioxide	3,127	kg GHG/t (metric)	01/01/2017	
Global	Residual fuel oil	Methane	0.40400	kg GHG/t (metric)	01/01/2017	
Global	Residual fuel oil	Nitrous Oxide	0.02424	kg GHG/t (metric)	01/01/2017	
Global	Anthracite	Carbon Dioxide	2,625	kg GHG/t (metric)	01/01/2017	
Global	Anthracite	Methane	0.26700	kg GHG/t (metric)	01/01/2017	
Global	Anthracite	Nitrous Oxide	0.04005	kg GHG/t (metric)	01/01/2017	
Global	Coke oven coke	Carbon Dioxide	3,017	kg GHG/t (metric)	01/01/2017	
Global	Coke oven coke	Methane	0.28200	kg GHG/t (metric)	01/01/2017	
Global	Coke oven coke	Nitrous Oxide	0.04230	kg GHG/t (metric)	01/01/2017	
Global	Other kerosene	Carbon Dioxide	2.51938	kg GHG/L	01/01/2017	
Global	Other kerosene	Methane	0.00035	kg GHG/L	01/01/2017	
Global	Other kerosene	Nitrous Oxide	0.00002	kg GHG/L	01/01/2017	
Global	Gas/Diesel oil	Carbon Dioxide	2.67649	kg GHG/L	01/01/2017	
Global	Gas/Diesel oil	Methane	0.00036	kg GHG/L	01/01/2017	
Global	Gas/Diesel oil	Nitrous Oxide	0.00002	kg GHG/L	01/01/2017	
Global	Naphtha	Carbon Dioxide	2.51162	kg GHG/L	01/01/2017	
Global	Naphtha	Methane	0.00034	kg GHG/L	01/01/2017	
Global	Naphtha	Nitrous Oxide	0.00002	kg GHG/L	01/01/2017	
Global	Liquified Petroleum Gases	Carbon Dioxide	1.61170	kg GHG/L	01/01/2017	
Global	Liquified Petroleum Gases	Methane	0.00013	kg GHG/L	01/01/2017	
Global	Liquified Petroleum Gases	Nitrous Oxide	0.00000	kg GHG/L	01/01/2017	
Global	Gasoline/Petrol	Carbon Dioxide	8.59873	kg GHG/gal (US)	01/01/2017	GHG Protocol Cross-Sector Tools - Transport Fuel Use - (April 2017)
Global	On-Road Diesel Fuel	Carbon Dioxide	10.13100	kg GHG/gal (US)	01/01/2017	
Global	Heavy fuel oil	Carbon Dioxide	11.12500	kg GHG/gal (US)	01/01/2017	
Global	Methane combusted	Carbon Dioxide	2.81016	t GHG (metric)/t (metric)	01/01/2006	Australian National Greenhouse Accounts (NGA) factors 2006 - Table 2.3: (Coal mine waste gas that is captured for combustion)
Global	Limestone flux reductant	CO ₂ e	0.44000	kg GHG/kg	01/01/2006	GHG Protocol sector-specific - Iron and steel 2008

Additional information *continued*

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These forward-looking statements may be identified by the use of forward-looking terminology, or the negative thereof including, without limitation, “outlook”, “guidance”, “trend”, “plans”, “expects”, “continues”, “assumes”, “is subject to”, “budget”, “scheduled”, “estimates”, “aims”, “forecasts”, “risks”, “intends”, “positioned”, “predicts”, “projects”, “anticipates”, “believes”, or variations of such words or comparable terminology and phrases or statements that certain actions, events or results “may”, “could”, “should”, “shall”, “would”, “might” or “will” be taken, occur or be achieved. The information in this document provides an insight into how we currently intend to direct the management of our businesses and assets and to deploy our capital to help us implement our strategy. The matters disclosed in this document are a ‘point in time’ disclosure only. Forward-looking statements are not based on historical facts, but rather on current predictions, expectations, beliefs, opinions, plans, objectives, goals, intentions and projections about future events, results of operations, prospects, financial conditions and discussions of strategy, and reflect judgments, assumptions, estimates and other information available as at the date of this document or the date of the corresponding planning or scenario analysis process.

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Cautionary statement regarding climate strategy

Glencore operates in a dynamic and uncertain market and external environment. Plans and strategies can and must adapt in response to dynamic market conditions, changing preference of our stakeholders, joint venture decisions, changing weather and climate patterns, new opportunities that might arise or other changing circumstances. Investors should assume that our climate strategy will evolve and be updated as time passes. Additionally, a number of aspects of our strategy involve developments or workstreams that are complex and may be delayed, more costly than anticipated or unsuccessful for many reasons, including, without limitation, reasons that are outside of Glencore’s control. Our strategy will also necessarily be impacted by changes in our business, such as the proposed acquisition of EVR and potential demerger of the combined coal and carbon steel materials business.

There are inherent limitations to scenario analysis, and it is difficult to predict which, if any, of the scenarios might eventuate. Scenario analysis relies on assumptions that may or may not be, or prove to be, correct and that may or may not eventuate and scenarios may also be impacted by additional factors to the assumptions disclosed. Given these limitations we treat these scenarios as one of several inputs that we consider in our climate strategy.

Due to the inherent uncertainty and limitations in measuring greenhouse gas (GHG) emissions and operational energy consumption under the calculation methodologies used in the preparation of such data, all CO₂e emissions and operational energy consumption data or volume references (including, without limitation, ratios and/or percentages) in this document are estimates. GHG emissions calculation and reporting methodologies may change or be progressively refined over time resulting in the need to restate previously reported data. There may also be differences in the manner that third parties calculate or report such data compared to Glencore, which means that third-party data may not be comparable to



Additional information *continued*

Glencore's data. For further information on how we calculate our emissions and operational energy consumption data, see the About our emissions calculations and reporting section in our 2023 Annual Report, which is available on our website, which is available on our website.

Sources

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