

# Fortescue FY23 Scope 3 emissions calculation methodology

Scope 3 category	Evaluation status	Metric tons CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Please explain
1. <b>Purchased goods and services</b>	Relevant, calculated	2,502,404	<b>Input-output method:</b> FY23 spend in US dollars was sourced from Fortescue finance and accounting system (SAP) and categorised into relevant GHG protocol categories based on Fortescue's accounting system with relevant emission factors sourced from the <b>Greenhouse Gas Protocol's Quantis tool</b> .	0%	Relevant purchased goods and services (except for those reported/covered by other scope 3 categories).  No exclusion of emission sources.
2. <b>Capital goods</b>	Relevant, calculated	119,473	<b>Input-output method:</b> FY23 spend in US dollars was sourced from Fortescue finance and accounting system (SAP) and categorised into relevant GHG protocol categories based on Fortescue's accounting system relevant emission factors sourced from the <b>Greenhouse Gas Protocol's Quantis tool</b> .	0%	No exclusion of emission sources.
3. <b>Fuel-and-energy-related activities (not included in Scope 1 or 2)</b>	Relevant, calculated	495,203	Emissions attributable to the extraction, production and transport of fuels and electricity transmission and distribution losses were estimated through applying the relevant Scope 3 emission factors from the <b>NGA Factors 2022</b> to consumption data for diesel, LPG, natural gas and electricity.	0%	The consumption of diesel, LPG natural gas and electricity used to estimate Scope 3 emissions was taken from the data used to estimate Scope 1 and Scope 2 emissions for the FY22 NGERs submission.  No exclusion of emission sources.

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4. <b>Upstream transportation and distribution</b>	Relevant, calculated	2,488,821	<p>a) Emissions attributable to outbound transportation and distribution services purchased by Fortescue during the reporting year. This is solely comprised of chartered shipping services. The nature of the individual shipping services contracts has dictated the boundary applied to account for emissions where the carrier is solely under Fortescue duty (e.g. ballast and laden legs).</p> <p>For FY23, shipping data for chartered vessels sourced from Fortescue included loading and destination ports and tonnage of cargo.</p> <p>Fuel usage data, where available, was sourced via a third party (Maritech Services Limited, Sea/ platform) direct from the ship owners. Fuel emission factors from the GLEC Framework (Page 89 - <a href="https://www.feport.eu/images/downloads/glec-framework-20.pdf">https://www.feport.eu/images/downloads/glec-framework-20.pdf</a>) were then used to calculate WTW CO2e emissions for these voyages via the Sea/ (Carbon Accounting) platform.</p> <p>When actual fuel use data was unavailable (owners do not submit their fuel consumption data), estimates were provided using third party's (Sea/ Carbon Accounting) Estimated Carbon Emissions proprietary data (a data model that accounts for speed and activity of a vessel each day, whether it is in port, in a berth, at sea or stationery). A reverse calculation method was used to derive the fuel consumed by breaking down the laden and ballast legs and dividing it by the carbon content factor. The carbon content factor applied was the HFO/VLSFO at 3.114.</p> <p>FY22 and FY21 emissions were recalculated to apply consistent emissions factors and reflect reclassifications from Category 9 to Category 4. As actual fuel use data was unavailable for these past years, emissions were therefore estimated using the GLEC Framework's Scope 3 approach to calculate WTW CO2e emissions.</p> <p>b) Some financial spend associated with upstream transportation and distribution was captured in Fortescue's finance and accounting system (SAP) and added to the category (3% of total category emissions). This included miscellaneous third-party upstream transport such as freight costs, with relevant emission factors sourced from the <b>Greenhouse Gas Protocol's Quantis</b> tool.</p>	97%	No exclusion of emission sources.
5. <b>Waste generated in operations</b>	Not relevant, explanation provided	N/A	N/A	N/A	Municipal waste generated by Fortescue's corporate offices and operations is considered immaterial.

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6. Business travel	Relevant, calculated	31,172	<p>Domestic and international commercial flights, chartered flights and car hire data was obtained directly from travel provider.</p> <p>Emissions from commercial flights were calculated using 2022 emission factors from UK's <b>Department for Energy Security and Net Zero and Department for Business, Energy &amp; Industrial Strategy</b>. Emissions from chartered flights were estimated using <b>2022 National Greenhouse Accounts Factors</b>. Car hire emissions were estimated based on Australian Bureau of Statistics (ABS) average day driving distances and emission factors sourced from UK's <b>Department for Energy Security and Net Zero and Department for Business, Energy &amp; Industrial Strategy</b>.</p> <p>Hotel, accommodation and taxi emissions were estimated from Fortescue's finance and accounting system (SAP) and converted into emissions estimates, with relevant emission factors sourced from the <b>Greenhouse Gas Protocol's Quantis</b> tool.</p>	74%	No exclusion of emission sources.
7. Employee commuting	Relevant, calculated	29,994	<p>Emission sources included are those from FIFO flight emissions, FIFO staff travel to and from the airport as well as emissions associated with staff commute to and from the corporate offices.</p> <p>FIFO flight emissions data was obtained <b>directly</b> from travel provider, and emissions were estimated using 2022 emission factors from UK's <b>Department for Energy Security and Net Zero and Department for Business, Energy &amp; Industrial Strategy</b>. FIFO travel to and from the airport was estimated using <b>Australian Bureau of Statistics (ABS)</b> data on average distance travelled and assumptions around number of time in a week this commute is made.</p> <p>Staff commute to and from corporate offices has been estimated using <b>Australian Bureau of Statistics (ABS) data</b>, transport mode, fuel types by transport mode, average business commute distance and fuel consumption/km by each transport mode.</p>	100%	No exclusion of emission sources
8. Upstream leased assets	Relevant, calculated	111,384	<p><b>Input-output method:</b> FY23 spend in US dollars was sourced from Fortescue finance and accounting system (SAP) and categorised into relevant GHG protocol categories based on Fortescue's accounting system with relevant emission factors sourced from the <b>Greenhouse Gas Protocol's Quantis</b> tool.</p>	0%	No exclusion of emission sources

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9. Downstream transportation and distribution	Relevant, calculated	367,115	<p>Emissions attributable to downstream transportation and distribution are solely comprised of chartered shipping services arranged and paid for by the customer, such as FOB (free on board) basis. Emissions included are those between the port of loading (Fortescue's operations) and the customer at the port of discharge (e.g. laden leg of the voyage).</p> <p>For FY23, shipping data for chartered vessels sourced from Fortescue included loading and destination ports and tonnage of cargo.</p> <p>Fuel usage data, where available, was sourced via a third party (Maritech Services Limited, Sea/ platform) direct from the ship owners. Fuel emission factors from the GLEC Framework (Page 89 - <a href="https://www.feport.eu/images/downloads/glec-framework-20.pdf">https://www.feport.eu/images/downloads/glec-framework-20.pdf</a>) were then used to calculate WTW CO2e emissions for these voyages via the Sea/ (Carbon Accounting) platform.</p> <p>When actual fuel use data was unavailable (owners do not submit their fuel consumption data), estimates were provided using third party's (Sea/ Carbon Accounting) Estimated Carbon Emissions proprietary data (a data model that accounts for speed and activity of a vessel each day, whether it is in port, in a berth, at sea or stationery). A reverse calculation method was used to derive the fuel consumed by breaking down the laden and ballast legs and dividing it by the carbon content factor. The carbon content factor applied was the HFO/ VLSFO at 3.114.</p> <p>FY22 and FY21 emissions were recalculated to apply consistent emissions factors and reflect reclassifications from Category 9 to Category 4. As actual fuel use data was unavailable for these past years, emissions were therefore estimated using the GLEC Framework's Scope 3 approach to calculate WTW CO2e emissions.</p>	100%	No exclusion of emission sources
10. Processing of sold product	Relevant, calculated	261,464,763	<p>Fortescue commissioned independent mining, metals and fertilisers consultancy <b>CRU</b> in FY22 to analyse its mix of iron ore products and determine <b>emissions factors</b> for each process from preparing iron ore, and the blast furnace to basic oxygen furnace route to producing crude steel in steel mills located in Fortescue's main markets.</p> <p>The emission factors developed by <b>CRU</b> were applied to the volumes of the relevant iron ore product sold into Fortescue's main markets to determine the emissions from transforming Fortescue's iron ore into crude steel. There were no changes in intensities between FY22 and FY23, therefore the emission factors remained the same for FY23.</p>	0%	No exclusion of emission sources

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<b>11. Use of sold products</b>	Not relevant, explanation provided	N/A	N/A	N/A	Fortescue has no influence over how crude steel is then converted into more sophisticated steel products for eventual end-use.
<b>12. End of life treatment of sold products</b>	Not relevant, explanation provided	N/A	N/A	N/A	Fortescue has no influence over how crude steel is then converted into more sophisticated steel products and recycled at the end of its use
<b>13. Downstream leased assets</b>	Not relevant, explanation provided	N/A	N/A	N/A	An emissions figure is not calculated for this category as Fortescue does not lease significant downstream assets in the course of normal operations.
<b>14. Franchises</b>	Not relevant, explanation provided	N/A	N/A	N/A	An emissions figure is not calculated for this category as Fortescue does not have franchised operations.
<b>15. Investments</b>	Not relevant, explanation provided	N/A	N/A	N/A	Fortescue is not engaged in any joint venture partnerships where it does not have operational control. Emissions associated with the Iron Bridge joint venture project are incorporated into the relevant Scope 1 2 and 3 calculations.
<b>Other (upstream)</b>	N/A	N/A	N/A	N/A	N/A
<b>Other (downstream)</b>	N/A	N/A	N/A	N/A	N/A