

# Greenhouse Gas Reporting Methodology

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## Purpose:

The purpose of this document is to communicate the Weir Group PLC (Weir/the Group) greenhouse gas (GHG) emissions inventory accounting methodology. This document serves as a resource for stakeholders to understand how the Group prepares and reports performance data used to track progress against sustainability goals.

We have reported our annual scope 1&2 GHG emissions within our Annual Report and Financial Statements since 2010 and scope 3 GHG emissions since 2021. The following sets out how the GHG emission data are prepared and reported in the Weir Annual Report 2024.

### **Reporting standards**

Our methodology for reporting greenhouse gas emissions is prepared in accordance with:

- The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard, Revised Ed;
- The GHG Protocol Scope 2 Guidance (an amendment to the GHG Protocol Corporate Standard); and
- The GHG Protocol: The Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

Where useful, guidance from reputable disclosure bodies, such as CDP, is followed.

### **Boundaries**

We have followed the GHG Protocol when defining the organisational boundary for GHG emissions reporting. We have chosen to follow the operational control approach, whereby we account for 100% of the GHG emissions from operations over which we have control. As such, scope 1 and 2 emissions account for operations over which we have control and GHG emissions not within our operational control are accounted for under Scope 3 emissions.

Definitions:

- Scope 1 Direct GHG emissions occur from sources that are controlled by the Group.
- Scope 2 Indirect GHG emissions from the generation of purchased electricity and imported cooling, heat and steam.
- Scope 3 Other indirect GHG emissions are the consequence of the Group's operations but occur from sources that are controlled by another entity other than the Group.

The primary source of the list of operational sites is the Weir Site Register alongside specific divisional updates. Our continuing operations consist of our Divisions (Minerals and ESCO) and Group functions.

Excluded from the scope 1 and 2 inventory are facilities not within the Group's operational control, specifically:

- joint venture facilities where we do not have operational control;
- facilities managed by Weir on contract to a third party with operational control;
- Weir-owned assets/equipment that are leased and operated by third parties;
- third-party operated warehouses including third party owned IT hosting locations; and
- private premises used by staff for home working.



# Base year and restatements

In accordance with the GHG Protocol, companies choose a base year to track performance ensuring relevant and consistent comparisons between periods. We have established a single base year of 2019 for Scope 1, Scope 2, and Scope 3 emissions from continuing operations to enable a comprehensive and consistent tracking of its emissions.

We review the base year and monitor the need for recalculation consistently through robust defined internal protocols. We apply a continuous improvement approach to our data collection methods as this is crucial for us to track the actions taken to reduce our emissions.

The following changes may trigger a base year and/or prior year recalculation following the guidance from the GHG Protocol:

- structural changes in the reporting organization, such as mergers, acquisitions, divestments;
- changes in calculation methodologies, reporting standards, improvements in data accuracy availability and granularity; and
- discovery of significant errors, or cumulative errors, that are collectively significant.

Where the recalculation above results in a change in the baseline or prior year total emissions of -/+ 5%, this will be restated in the annual report (baseline and comparative prior year only).

#### 2023 restatement

In line with above we continue to review our reporting in the light of any changes in business structure, calculation methodology and the accuracy or availability of data. As a result, we have restated 2023 use of sold products, category 11 scope 3 GHG emissions to reflect improvements in the availability and access to data. Specifically, the accuracy of the motor power rating (kilowatts) applied to the products we have sold was improved and as such reduced the use of estimated data.

# Systems

#### Scope 1 and 2

We have utilised the Strata system since 2019 for data collection, tracking energy efficiency projects and Group level energy and scope 1 and 2 GHG emissions reporting. Strata enables the tracking of activity data and emission factors.

In addition to the Strata system, we also use utility data aggregation software Urjanet (Arcadia Power, Inc.) to automate the collection of electricity, natural gas and water consumption data where possible.

Energy consumption data must be logged in Strata on a monthly basis or as soon as the information is available. It is often possible to automate part of this process using Urjanet which can automatically extract data from a site's electricity, natural gas and water invoices. All other energy consumption data (for example fuels and refrigerant gases) must be manually entered in to Strata by authorised site-based employees with access to relevant data.

#### Scope 3

The use of sold products, category 11, forms around 98% of total scope 1,2 & 3 emissions. During 2024, an initiative was launched by the Minerals division to improve the accuracy of the source data used in the use of sold products calculation. This process utilises actual data from the ERP system to validate products that contain motors as well as their motor size.

For this category of scope 3 data we have utilised an internal system, the Common Data Platform (CDP) to calculate and report GHG emissions. The CDP is a data and analytics platform based on Microsoft Azure technologies that gives data consumers a one-stop shop for data and provides them with consistent reporting and analytic capabilities. A number of datasets are available in the CDP including transactional data from ERP systems used for operational reporting.

To enable the calculation of use of sold product, category 11 emissions, data related to the sales of products with motors was obtained from the ERP system, and was utilised to form the basis of the products in use calculations.



For other categories of scope 3 emissions, data is collated from key contacts across the business and emissions are calculated in an Excel tool. We engage with a third party consultant to provide the tool and manage the annual calculations. We remain responsible for all data inputs, parameters and the applied calculations.

# **Basis of calculation**

We take a centralised approach to the calculation of Group GHG emissions asking that facilities and functions provide activity data only. For Group GHG reporting we calculate the GHG emissions for which we are responsible by multiplying activity data (e.g. amount of fuel used or electricity consumed) by relevant emissions conversion factors. These conversion factors allow activity data to be converted into tonnes of carbon dioxide equivalent (tCO2e). Emissions quantification is undertaken via the systems noted above.

Below describes an overview of emissions sources and a summary of the emission factor sources applied in the calculations. As a global business with multiple types of sites and operations, the data sources can vary in both format and degree of detail. Where an estimation approach is required, the best available data and calculation method is applied.

#### Scope 1 and 2

Scope 1 emissions are direct GHG emissions that occur from sources that are owned or controlled by the Group, for example, emissions from combustion in owned or controlled boilers, furnaces, vehicles and process emissions.

Scope 2 emissions are indirect GHG emissions from the generation of purchased electricity, heat or steam consumed by the Group and is purchased or otherwise brought into the organisational boundary of the company. They are calculated using both the location and market-based methodologies, reported in line with the GHG Protocol's dual reporting guidance.

The location-based method calculates emissions using the average emission intensity of local electricity grids which provide electricity to Weir's facilities. To calculate location based emissions we have used emission factors from the UK Government's annual 'GHG Conversion Factors for Company Reporting' for fuels and refrigerant gases each year. Other emission factors applied are at the grid level for USA and Australia and at national level for all other geographies.

The market-based method captures the impact of Weir's contractual arrangements to procure renewable or low-carbon energy and energy attribute certificates. To calculate market based emissions we have used emission factors from the UK Government's annual 'GHG Conversion Factors for Company Reporting' for each year and other contractual, market, residual or location based emissions factors in this order for grid electricity consumption where available.

We report on all emission sources required under the Companies Act 2006 (Strategic Report and Directors' Reports) Regulations 2013.

The following table describes the range of sources of emissions reported for scope 1 and 2.



Sources (scope 1 and 2)	Group example use
Acetylene	Welding process.
Burning Oil; also known as 'number 1 fuel oil',	Producing heat, steam or electricity. Usually burned
Kerosene and occasionally Paraffin	in a furnace or a boiler and is also used as a fuel for
	some types of generator.
Carbon Dioxide	Moulding, refrigeration and is also used a shielding
	arc in the welding process.
Diesel	Producing heat, steam or electricity.
Diesel - Mobile	Vehicles
Ethanol	Vehicles or process
Fuel Oil; Also known as 'number 2 fuel oil' or	Producing heat, steam or electricity.
'marine diesel oil'	Usually burned in a furnace or a boiler and is also
	used as a fuel for some types of generator.
Gas Oil; Also known as 35 second heating oil,	Producing heat, steam or electricity is used for
medium diesel or red diesel	industrial heating, plant and machinery.
Gasoline (Petrol)	Producing heat, steam or electricity.
Gasoline (Petrol) - Mobile	Vehicles
Heat	Heat could be purchased or self- generated for
	process or space/water heating.
Liquefied Petroleum Gas (LPG)	Producing heat, steam or electricity.
Natural Gas	Producing heat or power
Plywood	Producing heat or power
Propane	Producing heat, steam or electricity.
Propylene	Producing heat, steam, electricity or for vehicles and
	the welding process.
Purchased Electricity	Power
Refrigerant Gases; e.g. HFC-417, HFC- 410A, HFC- 407C, HFC-404A, HFC-23, HFC-134A	Air conditioning, cooling and refrigeration.
Renewable Electricity - Purchased	Power purchased from a renewable source.
Renewable Electricity - Self Generated	Power generated on site from a renewable source
	(e.g. wind, solar etc.).
Renewable Heat - Self Generated	Heat self- generated for process or space/water
	from a heating for renewable source (e.g. from
	biofuel, biogas etc.).
Steam	Steam could be purchased or self- generated for
	process or space/water heating.
Sulphur Hexafluoride (SF6)	Metals smelting process, electrical insulation of
	circuit breakers in substations and gas insulated
	switchgear.
Tonnes Poured	Metal poured within a foundry. This is an emission
	source for ESCO foundries only however it is used
	as a production metric for both ESCO and Minerals.



Scope 3 The following table describes the reported scope 3 sources of emissions and their calculation methodology.

Scope 3 sources	Data inputs	Calculations and emission factors		
1. Purchased Goods & Services and Water Supply	Spend by category, Spend by supplier, Tonnages	<ul> <li>Spend</li> <li>Spend-Based approach using US Environmental Protection Agency supply chain emission factors. Weir use spend data broken down by spend category. Spend categories are mapped to an appropriate Environmentally Extended Input Output (EEIO) emission factor and spend converted into USD (2022). EEIO supply chain emission factors without margin (i.e. the embodied emissions related to goods and services) were then applied to the spend in USD to calculate greenhouse gas emissions. Emissions resulting from the application of EEIO supply chain emission factors margin to spend data (i.e. emissions related to the transportation of goods and services from a Tier 1 supplier to Weir) are included under S3-4 Upstream Transportation &amp; Distribution. Negative spend, which would result in negative emissions, and spend associated with activities where actual data was available and thus would be double counted, were both excluded from the calculation.</li> <li>Weight Data</li> <li>Weight Data</li> <li>Weight Data is provided for the some of the materials that are used directly in the manufacturing of Weir products. Where this tonnage and an appropriate embodied carbon factor were available, emissions were calculated using Circular Ecology ICE Database (V3) emission factors. When emissions from weight could be calculated, this value supplanted the one calculated using the spend based methodology (see above).</li> <li>Water</li> <li>Emissions from the purchase of water are calculated using actual water consumption data where available. For sites where consumption is not available this is estimated using m3 / FTE proxy values.</li> <li>Refer to '5. Waste Generated in Operations' for a detailed explanation of</li> </ul>		
2.Capital Goods	Spend data Finance data	the calculation methodology used to calculate emissions from water. Same spend- based approach using 1. Purchased Goods and Services calculation (above). 'CapEx' spend data is separated from above to define Capital Goods. Exclusions are made to avoid double counting and to ensure only spend relevant to capital goods is included. As with 1. Purchased Goods & Services, EEIO supply chain emission factors without margin (i.e. the embodied emissions related to goods and services) were then applied to the spend in USD to calculate greenhouse gas emissions. Emissions resulting from the application of EEIO supply chain emission factors margin to spend data (i.e. emissions related to the transportation of goods and services from a Tier 1 supplier to Weir) are included under S3-4 Upstream Transport & Distribution.		
3. Fuel & Energy Related Activities	Raw fuel and energy data from scope 1 & 2	Weir obtains raw data for fuel, electricity, fugitive emission and district heat & steam consumption for stationary and mobile assets as identified through the Scope 1&2 process. Well-to-tank (WTT) and transmission distribution emission factors are then applied to this data to calculate upstream emissions. All metrics are converted to kWh using		



Scope 3 sources	Data inputs	Calculations and emission factors	
		Carbon Footprint 2024 Custom Factors - ECCC 2024 Custom Factors - Energía Abierta 2023 Custom Factors - ESKOM 2023 Custom Factors - MEE-PRC 2021 Custom Factors - NGAF 2024 Custom Factors - NZME 2024 Custom Factors - RTE 2024 Custom Factors - US EPA 2024 DEFRA 2024 ECCC 2024 ESKOM 2023 IEA 2024 NGAF 2024 NZME 2024	
4. Upstream Transportation & Distribution	Logistics data – tonne, kms Spend data	<ul> <li>Where the tonnage and distance travelled of goods transported is provided by transport type (i.e. Road, Sea, Air), tonne.km data is calculated. These tonne.km values were then applied to DESNZ 2024 emission factors for freight transport to calculate emissions. This data included the transport of goods into and out of Weir as the business paid for the transport in both instances.</li> <li>The following assumptions were made when applying emission factors to the data:</li> <li>Air: Assumed International Freight Flights for all trips.</li> <li>Sea: Assumed Container Ship, Average Load emission factor for all trips.</li> <li>Road: Assumed HGV (all diesel); All HGVs, Average Load emission factor for all trips.</li> <li>The calculation includes WTT emissions associated with the fuel used to power the vehicles used to transport goods and services. These emissions are considered optional with GHG Protocol guidance but are recommended for inclusion by the Science Based Target initiative (SBTi).</li> <li>For spend data US EPA EEIO factors were applied to spend associated with inbound and outbound transport &amp; distribution and the resulting emissions pulled through into the upstream transportation and distribution missions (i.e. emissions related to the transportation of goods and services (above).</li> </ul>	
		Included in the total upstream transportation and distribution emissions. These were calculated by applying EEIO marginal emission factors from the US EPA (see '1. Purchased Goods & Services' for a detailed explanation.) The majority of spend or actual tonne.km data that Weir has available is used for outbound transportation of products, therefore it is still relevant to apply the "marginal" EEIO transportation and distribution factors, since these should represent the gate-to-shelf emissions of all supply chain goods & services the company has purchased in the reporting year.	



Scope 3 sources	Data inputs	Calculations and emission factors
		Warehousing Emissions have been calculated to represent fuel and electricity consumption in warehouses which are paid for by Weir's customers or third parties as part its outbound logistics process. These calculations have been made based on actual floor area data and energy consumption benchmark data from the Chartered Institution of Building Services Engineers (CIBSE). Estimations have been made where actual floor data is not available.
		Electricity: Consumption is based on assumed 53 KWH per M2 per year "Good" performance Distribution Warehouse, taken from table 20.6 in CIBSE Guide F, "Energy Efficiency in buildings" (2012)
		Natural Gas: Consumption is based on assumed 114 KWH per M2 per year "Good" performance Distribution Warehouse, taken from table 20.6 in CIBSE Guide F, "Energy Efficiency in buildings" (2012)
		Geographic specific emissions factors have then been applied, in accordance with scope 1&2 for the estimated electricity and natural gas usage <b>Waste</b>
5. Waste Generated in Operations	Employees by site Water and wastewater utility data	An estimation was calculated for waste-related emissions due to unavailability of raw operational waste data. Based on desk-based research of peer companies' public reports where waste data has been publicly disclosed, Weir's third party consultants have created extrapolators based on full time employees. The extrapolators estimate Weir's operational waste in each facility, based on the number of FTE's - using a kg/FTE metric. Where sites closed or opened part way through the reporting period, the percentage of time that they were open for has been factored into the estimate. An assumption has been made that all waste goes to landfill.
		Emission factors used are from DESNZ 2024. <b>Water</b> Raw water consumption data was used for locations which had this data available. Where water consumption data was available for a site but water treatment was not, as assumption was applied to estimate water treatment emissions that this was the same.
		For operating locations with FTEs but no actual water data in the reporting year, an average water (m3) per FTE metric was derived, using a median average across locations which had this data. This median average m3/FTE was then applied to locations with no water data, to estimate water consumption based on FTEs.
6. Business Travel	Spend data	Emission factors used are from DESNZ 2024. Spend data is utilised and EEIO emission factors have been applied to the spend data to calculate emissions. The data was obtained from the Groups travel and expense system. Emissions from employee commuting and teleworking were calculated
7. Employee Commuting	Employees by country	based on Weir's FTE count at different sites. The Group does not have a process to establish the commuting habits per employee or per site. Instead, the Group uses a percentage split of FTE working from home vs. commuting to site per week. This creates work from home ratios (1= commuting every day, 0 = working from home every day), disaggregated by country and corporate division. Sites are



Scope 3 sources	Data inputs	Calculations and emission factors
		given work from home ratios based on their associated country and corporate division, regardless of business activity.
		The number of days employees worked on average was calculated by the difference between the total number of business days per annum (assumed to 252 for all sites) and total number of holidays day per annum (assumed to 25 days for all sites).
		Also, the Group distinguishes between employees and consignment workers and consignment workers were assumed to work on site every day, and workers associated with home offices were assumed to work from home every day.
		An assumption has been made that commuting habits during the current reporting period are similar to those in the previous reporting period, and that commuting habits at facilities within the same country are similar. As such, the same work from ratios as the prior period have been applied.
		After calculating the 'Commuting FTE' and 'Teleworking FTE' using the above methodology, emissions are calculated using the following formula:
		Number of days employees worked on average * Commuting/Teleworking FTE * Commuting/Teleworking Emission Factor (kgCO2e/FTE/day).
		Employee commuting emissions were calculated using national average data for travel modes taken by commuters and related distance travelled(sourced via Numbeo.com), combined with emission factors for different travel modes taken from DESNZ.
		Teleworking emissions were calculated based on a variety of assumptions relating to the average energy consumption of teleworkers in different countries/regions (sourced via Anthesis guide 'Estimating energy consumption & GHG emissions for remote workers and Worldometer.com) using appropriate emission factors for Natural Gas and Electricity for each country/region (see Scope 1 & 2).
		The calculation includes WTT and transportation and distribution emissions associated with the fuel and electricity used to power commuting vehicles and homes. These emissions are considered optional with GHG Protocol guidance but are recommended for inclusion by the Science Based Target initiative (SBTi).
8. Upstream leased assets	Estimation based on employees	Estimates have been made for Upstream leased assets by creating a kWh per FTE intensity metric based on sites identified as 'Office' in the site register. Separate intensity metrics have been calculated for each business division and applied to the FTE associated with upstream leased assets. Geographic specific emissions factors have then been applied, in line with scope 1&2 for the estimated electricity and natural gas usage
9. Downstream Transportation & Distribution	Spend data Logistics data	Warehousing Emissions have been calculated to represent energy consumption in warehouses which are paid for by Weir's customers or third parties as part of its outbound logistics process. These calculations have been made based on actual floor area data and energy consumption benchmarks data from CIBSE.



Scope 3 sources	Data inputs	Calculations and emission factors				
		Electricity: Consumption is based on assumed 53 KWH per M2 per year "Good" performance Distribution Warehouse, taken from table 20.6 in CIBSE Guide F, "Energy Efficiency in buildings" (2012)				
		Natural Gas: Consumption is based on assumed 114 KWH per M2 per year "Good" performance Distribution Warehouse, taken from table 20.6 in CIBSE Guide F, "Energy Efficiency in buildings" (2012).				
		Geographic specific emissions factors have then been applied, in accordance with scope 1&2 for the estimated electricity and natural gas usage				
	Sold products, actual and estimations of motor size, assumptions on utilisation and country/ region of sale.	(see further expl recognized in the the sales data. / included: motor	anation in section t e year of reporting All sold machinery	ated all sales data p itled - Systems). Er using the goods iss with the following as , machine brand, op te of operation.	nissions are ued date within ssociated data is	
		Data for one product line is manually uploaded into the CDP system, due to the need to differentiate the fuel source used.				
		Annualised power consumption was calculated based on date of shipment. The annualised power consumption was then multiplied by a 20 year period, which is the assumed use-phase (lifetime energy consumption).				
		Country specific location-based emission factors were then applied based on the ship to country location from IEA 2024, DESNZ 2024, NGAF 2024, USA EPA and where no emissions factors was available a custom factor was created by SLR consulting.				
11. Use of Sold		Below is a worked example of a calculation conducted in the CDP:				
Products		(Nameplate power)*(Annual Utilisation)*(Nameplate factor)*24*365/(Efficiency) 710*0.90*0.95*24*365/0.87 = 6,112,366 kWh Emission factor = 0.81 kg CO2e/kWh 6,112,366*0.81/1000 = 4,951 tCO2e				
		The utilisation rules, nameplate factor, efficiency and useful life assumptions are informed by technical experts within Weir and reviewed on an annual basis.				
			Lower Range	Higher Range		
		Annual Utilisation	50%	95%		
		Nameplate	80%	95%		
		Efficiency	78.8%	91.7%	1	
		Weir provides services to customer sites across Canada. Emissions associated with these facilities have been based on actual energy & fuel consumption data which has been extrapolated. Emissions are <1% of this category.				
12 End of life	Spend by	Purchased goods and services tonnage data was used as proxy fo				
12. End of Life Treatment of Sold Products	category Spend by	materials sold in the reporting year. For example, if 10,000 tonnes of steel plate were purchased in the reporting year, it was understood that 10,000 tonnes of steel plate would be disposed of by customers (not accounting for wear). For certain product lines a 'wear factor' was				
	supplier					



Scope 3 sources	Data inputs	Calculations and emission factors		
	Tonnages (ESCO only)	applied to all materials which were incorporated into the products. Other materials had a wear rate of 100% (i.e. they did not lose any material). Materials were assumed to be 100% recycled unless they were unable to be recycled in which case they were assumed to be 100% landfilled. Where purchased goods and services tonnage data was not available		
		for the reporting year, an estimation was applied based on tonnage data from 2021. Total purchased goods and services spend from 2021 and 2024 was compared to find YoY change. This percentage change was applied to material weight from 2021 to estimate tonnage in 2024. Metals were assumed to be 100% recycled whilst plastics were assumed to be 100% sent to landfill.		
		For all of the above, DESNZ 2024 waste emission factors were applied to the material weight to calculate emissions.		
13. Downstream leased assets	Sold products, estimations of motor size, assumptions on utilisation & country/ region of sale.	Weir has a very small amount of activity leasing equipment to customers. Emissions associated from leased equipment has been estimated and energy usage has been calculated by averaging pump sales in year.		
		Appropriate geographic emissions factors have then been applied based on market share.		
15. Investments	Fuel and energy consumption data	Emissions have been calculated from Weir's 50% joint venture (JV) investment. Actual fuel and energy consumption data is tracked annually as part of Weir's central data collection system, and a 50% share of this is allocated to Weir in alignment with its JV share in the reporting year.		
		Optional WTT & transportation and distribution emissions have been calculated for this site.		



#### Scope 3 – excluded emission categories

The following scope 3 categories have been assessed as not relevant as they were all considered to make no contribution to our scope 3 emissions. As such, they are not applicable to the calculation methodology:

- Processing of sold products: Weir products are sold directly to the end user.
- Franchises: Weir does not have Franchises.

If any significant business changes, as with the baseline and restatement policy, the relevance of excluded emission categories will be reassessed.