Methodology Statement

2024

Spirax Group

Introduction

Spirax Group ('Group' or 'Company') is a global thermal energy management and fluid technology solutions Group. Our Company Purpose is to create sustainable value for all our stakeholders as we engineer a more efficient, safer and sustainable world.

This statement outlines the processes, assumptions and estimations used when calculating our non-financial data, as included in our 2024 Annual Report and Accounts.

Scope

We employ an 'operational control' definition to outline our Company boundary. Included within that boundary are manufacturing facilities, administrative and sales offices where we have authority to implement our operating policies.

Basis of reporting

Spirax Group reports against the following metrics for all sites included in our 'operational control' definition (see: Scope). For all entities we have measured and reported on our relevant scope 1, scope 2 and partial scope 3, category 3 carbon dioxide equivalent (CO_2e) emissions and water for 2024.

Metric	Scope
Scope 1	Stationary Combustion CO_2e emissions – natural gas, diesel, gas oil, heating oil, propane
	Mobile Combustion CO_2e emissions – vehicle fuels (various), distance travelled (km/miles)
	Fugitive emissions of fluorinated gases (refrigerant losses, propellant losses)
Scope 2	CO_2e of purchased electricity (market and location-based accounting)
	CO_2e of purchased heat/steam & cooling
Scope 3*	Category 3: Fuel- and Energy-Related Activities – Upstream Emissions of Purchased Fuels, Purchased Electricity & Transmission & Distribution Losses

*Note: Scope 3 Category 3 is within scope of limited assurance by Deloitte for Financial Year 2024. Other Scope 3 Categories are excluded from that assurance. Please see the Scope 3 section below for details of the Scope 3 calculation method.

Metric	Scope
Scope 1 & 2	GHG emissions intensity from energy per £m revenue

Metric	Scope
Energy (GWh)	Natural gas purchased, electricity used, exported electricity, coal, other fossil fuels, renewable heat, purchased heating and cooling, purchased non-renewable electricity, purchased renewable electricity, on-site renewably generated electricity. The amount of energy exported back to the grid is removed from this total.
Total energy for operations	
% Renewable electricity	

Metric	Scope
Water (recorded as m^3)	Total water use: supplied water from municipal, ground water, tankers. and recycled sources.

Acquisitions, mergers and disposals

For acquisitions and mergers, we report in the financial year following their first full year of ownership. If inclusion of historic data for the acquired company causes a significant change to our baseline figures, the data will be restated in line with our restatement parameters below.

Any disposals will be reported against until they cease to come under our operational control. Baseline data will be restated to remove disposals in line with our restatement parameters below.

Restatement

Improvements in data availability, accuracy, or changes in published emission factors, company structure or calculation methodologies may cause changes in data compared to historic published figures. We will restate historic data if these changes cause a difference of 2% or more compared to published figures.

We will restate historic data for Water if these changes cause a difference of 2% or more compared to published figures.

In line with the Greenhouse Gas (GHG) Protocol, energy and GHG historic data, including the baseline year 2019, will be restated where a change in Company structure (associated with acquisition or disposals) represents a material difference of 5% or more compared to published figures. The GHG protocol does not cover other types of sustainability data, e.g. water and waste, so these types of historic data will not be restated following a change in company structure.

When restating historic data due to changes in Company structure, we will restate existing Group data to take into account improvements in data availability and accuracy, even if these improvements would not have otherwise met the 2% restatement threshold.

When considering acquisitions where accurate data are not available, we will use sustainability data captured in the new acquisition's first full year of ownership and extrapolate historic years' data based on annual revenues.

Reporting Period Covered

Energy, emissions (Scope 1, 2 and Scope 3 category 3) and water are collected and reported in line with the financial reporting period - the year to 31 December 2024 (i.e. the numbers included in the Annual Report are for the same 12-month period as the Financial Statements).

Where actual data is not collected in time for year-end, sites include an estimate based on previous months' data.

For Scope 3 (all other categories) data is reported on a year lag (so for year to 31 December 2023 in FY24).

Sustainability Targets

Energy: Purchased and Used Electricity Reporting

- 20% reduction of energy use from plant equipment and building assets by end 2025, compared to a 2019 baseline
- 100% of electricity sourced or generated from renewable sources by end 2030
- Achieve Net Zero GHG emissions from our operations by end 2030 (Scopes 1 & 2)

Energy: Stationary Combustion Reporting

- 50% reduction in Scope 1 and Scope 2 (Market Based) GHG emissions by end 2025, compared to a 2019 baseline
- Achieve Net Zero GHG emissions from our operations by end 2030 (Scopes 1 & 2)

Energy: Mobile Combustion Reporting

- 15% reduction in travel (Scope 1)
- 100% of vehicle fleet to be electric by end 2030

Water Use Reporting

- Reduce water consumption by 15% by end 2025, compared to a 2019 baseline

Waste Generation Reporting

- 10% reduction in waste generation by end 2025, compared to a 2019 baseline
- 0% waste to landfill by end 2025

Scope 1 & 2 Greenhouse Gas Reporting & Emission Factor Sources

For all entities we have measured and reported on our relevant scope 1, scope 2 and partial scope 3 emissions for 2024. We have used the GHG Protocol Corporate Accounting and Reporting Standard and the GHG Protocol Data Hierarchy, striving for the highest precision possible. Emission factors have been used from credible publications such as the UK Government's (DEFRA/DECC) GHG Conversion Factors for Company Reporting 2019-2024, data from the International Energy Agency (IEA) 2019-2024, ISO 140064-1, U.S. Environmental Protection Agency, The GHG Protocol Initiative and regionally specific Environmental Reporting Guidelines (e.g. Australian/ Canadian Government) to calculate our total CO_2e emissions figures on a location-basis for scopes 1 & 2.

Spirax Group reports fugitive refrigerant emissions by identifying the types and quantities of refrigerants used (e.g. R401a) tracking their usage and reporting refrigerant losses from engineer logs and maintenance checks. This is calculated into CO_2e by using specific global warming potential (GWP) values. In cases where the actual data is not readily available Spirax Group estimates data based on previously provided actual data. Fugitive refrigerant emissions are not material in total when compared to overall GHG emissions.

For Scope 1 emissions, we strive to use actual data (litres/kWh/kg) wherever possible. When this is not always an option (such as mobile combustion reporting) we estimate using distance-based emission factors using appropriate assumptions. Where actual fuel consumption is not available, emissions are estimated based on distance travelled and appropriate emissions factors based on vehicle type, or lease mileage data.

We assume all mileage in company owned cars for which Spirax Group pays the fuel is directly attributable to the business and therefore included in Scope 1 emissions. An exception is in STS Germany where fuel usage is assumed to be split 66.6% : 33.3% between company (Scope 1) and employee private mileage (Scope 3).

To report under the market-based method for purchased electricity (Scope 2) we have used the GHG Protocol data hierarchy, striving for the highest precision possible. For sites with green energy contracts, we have obtained emissions factors for the relevant tariff and/or supplier in the first instance, using the residual mix where supplier-specific emissions factors (SSEFs) are not available. For sites without green energy contracts, we follow the data hierarchy and apply location-based factors only where SSEFs or residual mix are not available. When entering new green contracts, we apply SSEFs (where available) from the start of the contract and do not restate prior years with SSEFs. No certified green energy contracts are included in our market-based figures for 2019 or 2020.

Scope 3

Scope 3 calculations were completed in accordance with the Greenhouse Gas Protocol and ISO14064, as the standard recommended by the Science Based Targets initiative (SBTi), and in conjunction with third-party consultants, Sphera.

The emission factors are extracted mostly from Sphera's software and database Sphera Managed LCA Content. Sphera Solutions GmbH, Leinfelden-Echterdingen, Germany.

Further databases include DIN EN 16258, Energy Information Administration (IEA) and the US Environmental Protection Agency (EPA).

The respective data is evaluated with the impact measurement category GWP100 (according to IPCC AR5), excluding biogenic carbon, including climate carbon feedback:

- GWP means Global Warming Potential = measure of how much heat a greenhouse gas traps in the atmosphere up to a specific time horizon, relative to carbon dioxide
- A GWP is calculated over a specific time horizon, so here we analyse the 100-year time horizon global warming potential
- IPCC AR5 is the Intergovernmental Panel on Climate Change's (IPCC) Fifth Assessment Report
- Excluding biogenic carbon means that a credit for the carbon storage is excluded for the observed timeframe of 100 years, as we expect that it will be released during this time (some materials bind CO_2, such as timber)
- Factors include the climate carbon feedback of non-CO_2 gases

- More information can be found here: https://www.ghgprotocol.org/sites/default/files/ghgp/GlobalWarming-Potential- Values%20%28Feb%2016%202016%29_1.pdf

The following categories have been included in our Scope 3 Calculations

Scope 3 Category	**Scope**
Category 1 - Purchased Goods & Services	Spirax Group calculates all applicable Category 1 Purchased Goods & Services emissions from its STS, ETS & WMFTS businesses
Category 2 - Capital Goods	Spirax Group calculates all applicable Category 2 Capital Goods emissions from all of its STS, ETS & WMFTS businesses
Category 3 - Fuel & Energy related Emissions	Spirax Group calculates all applicable Category 3 fuel and energy related activities from its scopes 1 & 2 activities for all locations
Category 4 - Upstream Transportation & Distribution	Spirax Group calculates all applicable Category 4 upstream transportation and distribution emissions resulting from 3rd party logistics and freight forwarders
Category 5 - Waste generated in Operations	Spirax Group calculates all applicable Category 5 waste generated in operations emissions resulting from 3rd party waste providers
Category 6 - Business Travel	Spirax Group calculates all applicable Category 6 business travel emissions arising from 3rd party transportation of employees
Category 7 -Employee Commuting	Spirax Group calculates all applicable Category 7 emissions resulting from employees travelling to and from their workplace and home
Category 11 - Use of Sold Products	Spirax Group calculates all applicable Category 11 use of sold product emissions from its businesses that sell products that consume energy
Category 12 - End of life treatment of sold products	Spirax Group calculates all applicable Category 12 end of life treatment emissions from its manufacturing facilities

The following categories have been excluded from our Scope 3 calculations:

Scope 3 Category	Scope
Category 8 - Upstream leased assets	Spirax Group does not have leased assets to be allocated into this category.
Category 9 - Downstream Transportation and Distribution	This category is excluded. Spirax Group arrange and pay for all transportation from sales sites and therefore have no downstream transportation and distribution emissions.
Category 10 - Processing of Sold Products	There are no products sold which (may) require further processing. Category not applicable, excluded.
Category 13 - Downstream Leased Assets	Spirax Group does not lease any items to other companies. Category not applicable, excluded.
Category 14 - Franchises	Spirax Group does not operate any franchising models. Category not applicable, excluded.
Category 15 - Investments	Spirax Group does not have investments applicable for category 15. Category not applicable, excluded.

Total water use

Total Water Use is calculated as the sum of the volume of water supplied to all Spirax Group sites.

Sites determine water supplied based on invoices from suppliers or meter readings. All sites submit data on a monthly basis via a central sustainability reporting software system. Sites submit total water use data in either gallons, litres or m^3. This is then converted to m^3 automatically based on conversion factors embedded in the reporting system.

After the completion of the reporting period (to 31 December), a report is run from the system which sums all Total Water Use submitted by sites in m^3 for the 12-month period. This total is reported in the Annual Report.

If there is no invoice or meter reading data available by the Quarterly Reporting Deadline, sites enter estimate data. The recommended method for estimating data is to use the previous year's data relative to the month/quarter being estimated.

Where previous year's data is not available for water, water use is estimated using a per-capita consumption figure, based on average per capita water usage from similar sites, (which is calculated each year) and extrapolated to the missing sites by headcount.

Waste generation

Where site-level data is not available for waste, an agreed methodology is applied to calculate this missing data. Using waste generation figures from similar sites, a per-capita average waste production is calculated each year and extrapolated to the missing sites by headcount. The assumption is made that the calculated waste generated will all be sent to landfill, in the absence of more accurate distinctions.

Biodiversity

To calculate biodiversity net gain for new manufacturing sites and facilities, a method is applied based on the UK's DEFRA methodology, taking into account any locally-specific net gain methodologies. Where possible, sites are assessed before commencement of major construction work to establish a biodiversity baseline on which to base net gain calculations.

If construction work had already commenced before the biodiversity net gain commitment was established, a desktop calculation has been performed using historic maps and any other publicly available information.

Customer environmental saving metrics

Our bespoke energy, water and carbon savings assessment tool models the impact of the annual sales of certain categories of products on the energy and water use of typical industrial site, with an average steam system and an average compressed air system. It calculates the reduction in fuel, electricity and water consumption resulting from reduced steam generation and increased heat recovery and the corresponding reduction in Greenhouse Gas (GHG) emissions in terms of the equivalent Carbon Dioxide (CO_2) emissions.

The model, developed in conjunction with Ricardo Energy & Environment (Ricardo), is used to calculate the typical energy savings realised by each type of product are based on the methodologies used by the Company's engineers to determine product effectiveness and efficiency, which we have validated against good practice guides on product design and case studies.

Detailed product design data is used to estimate one of the following parameters for each type of product, which are related to energy saving or usage factors:

- Avoided steam losses
- Amount of condensate recovered and reused
- Amount of flash steam recovered and reused
- Amount of steam monitored using steam metres
- Avoided compressed air generation

We have used Ricardo's technical knowledge of industrial steam and compressed air systems, impact assessment and carbon accounting to turn these methodologies into models that produce robust estimates of energy, carbon and water savings realised by installing Company products globally.

The methodology used to determine these energy, water and carbon savings has been independently assessed by Ricardo Energy & Environment. The carbon savings methodology covers the following categories of products:

Steam Thermal Solutions

- Flash Vessels
- Condensate Pumps
- Steam Traps
- Steam Meters
- BSA Bellows Sealed Stop Valves
- EasiHeat Heat Exchangers

- Smart Positioners
- Electric and Pneumatic (EL+PN) Controls
- Pressure Regulation Controls
- Safety Valves
- Steam Separators
- Product Insulation
- Blowdown Heat Recovery Packages
- EVC Heat Exchangers
- High Efficiency Heat Exchangers
- Modulating Level Controls

Electric Thermal Solutions

- TargetZero Steamvolt
- TargetZero Electrofit
- TargetZero Steam Battery

Watson-Marlow Fluid Technology Solutions

- Certa Pumps

Only products that deliver savings that can be quantified with reasonable accuracy are included in the methodology. The energy, water and carbon savings are based on the latest available regional emission factors.

It should be noted that customer savings vary year-on-year due to changes in product mix and changes in regional emissions factors.