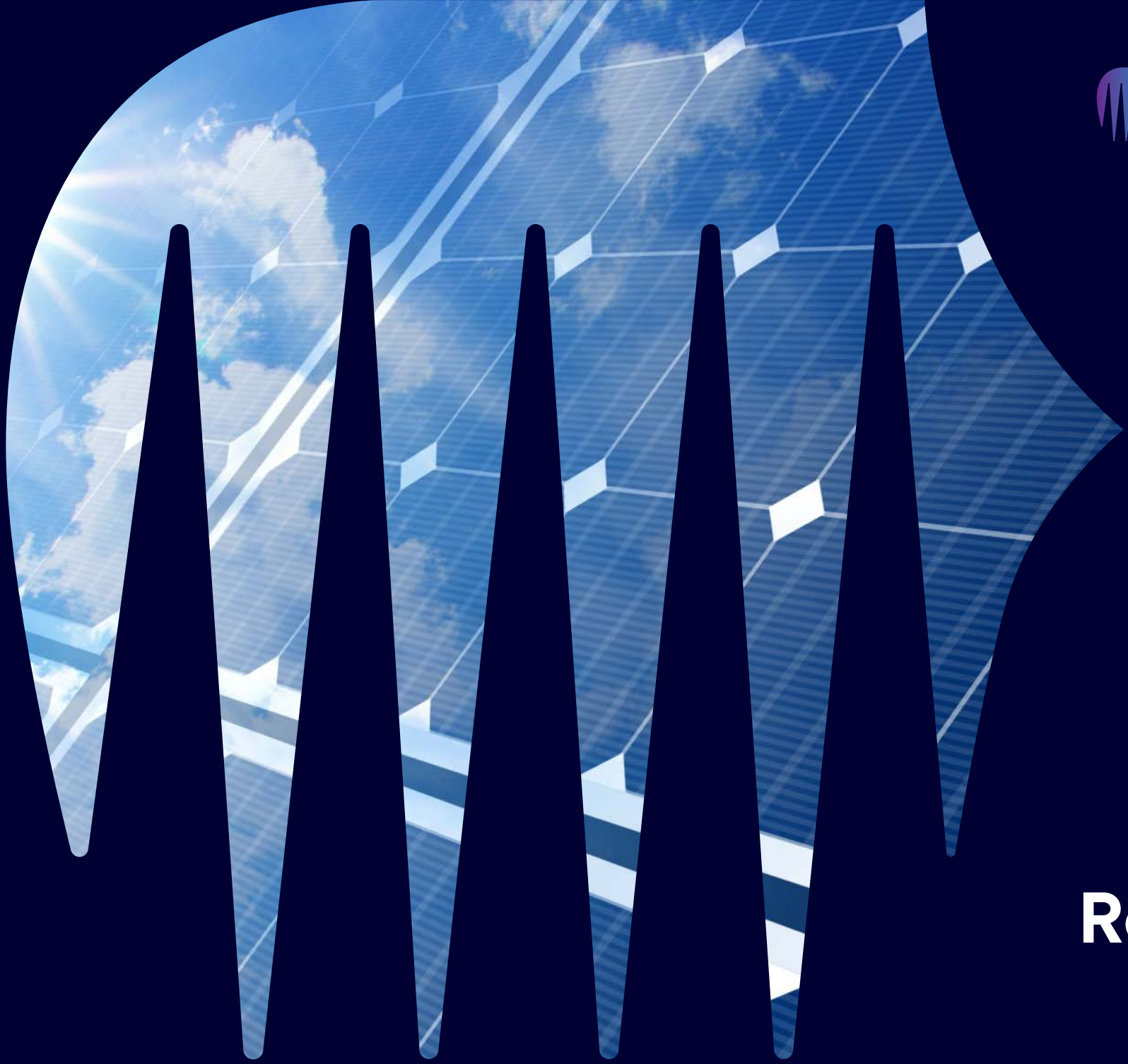


Sonardyne

Carbon Neutrality Report 2025

Document author: Carl Holland
Approved by: Graham Brown

Contents

Introduction

Thank you for your interest in Sonardyne and our journey towards being carbon neutral.

The climate crisis is the defining challenge of our time, with rising sea levels and ocean temperatures serving as critical indicators of our planet's health. As the science surrounding global warming becomes increasingly clear, the urgency for action by governments, businesses, and individuals has never been greater.

Sonardyne is a privately-owned UK-based company specialising in the design, manufacture, sale and support of advanced marine technology. With operations spanning With operations spanning the UK, USA, Brazil and Singapore, our reach extends globally, serving customers in the offshore oil, gas, and wind energy sectors, as well as leading research organisations dedicated to climate science.

Our vision is centred on sustainable and ethical business - one that benefits the communities we operate in, fosters economic enterprise, and preserves the natural environment. We measure, monitor and manage our footprint, and are guided by ISO 14064, ISO 14068 and the GHG Protocol, the internationally accepted standard for carbon accounting.

This report marks the release of our second Carbon Neutrality Report, which provides a comprehensive overview of our greenhouse gas (GHG) emissions across Scopes 1, 2, and 3 and includes well-to-tank (WTT) emissions for the first time. I hope you find it informative, and we look forward to reporting on future progress.

Carl Holland \ HSE Manager
Sonardyne International Ltd.

Amendment history

The amendment history records all amendments and additions made to this document.

Issue	Date	Comments
1	31 Jul 2024	Initial Issue
2	09 May 2025	2024 Issue
3	16 July 2025	Amendments to 2024 issue

Definitions

Abbreviation	Definition
Sonardyne	Sonardyne International Ltd
GHG	Greenhouse gas
tC02e	Tonnes of carbon dioxide equivalent
CNMS	Carbon Neutrality Management System

Related documents

Reference	Title
1	Energy data spreadsheets
2	Carbon footprint 2024 calculations and methodologies

1 Sonardyne and its boundary

1.1 Subject

The subject of the CNMS is Sonardyne International Ltd and applies to Sonardyne International Ltd facilities, namely:

UK sites:

- Ocean House (HQ and Registered Office)
- Fathom House
- Haven House
- Plymouth (Pier House and Pier Cottage)
- Aberdeen

Overseas:

- Brazil – Sonardyne Brazil Limitada
- Houston (United States) – Sonardyne Inc
- Singapore – Sonardyne Asia PTE Limited

The organisational boundary includes applicable Brazil - Salvador carbon (employee commute and flight).

1.2 Boundary

The boundaries of Sonardyne International Ltd comprise of Scope 1 (Direct), Scope 2 (Indirect) and applicable Scope 3 (Indirect) emissions.

2 Rationale for selection of activities

The rationale for the selection of companies is that comprehensive carbon data is available.

3 Carbon neutrality plan

The Sonardyne Managing Director signed our commitment to carbon neutrality statement on the 3rd July 2024.

The following targets are in place for 2024 and beyond:

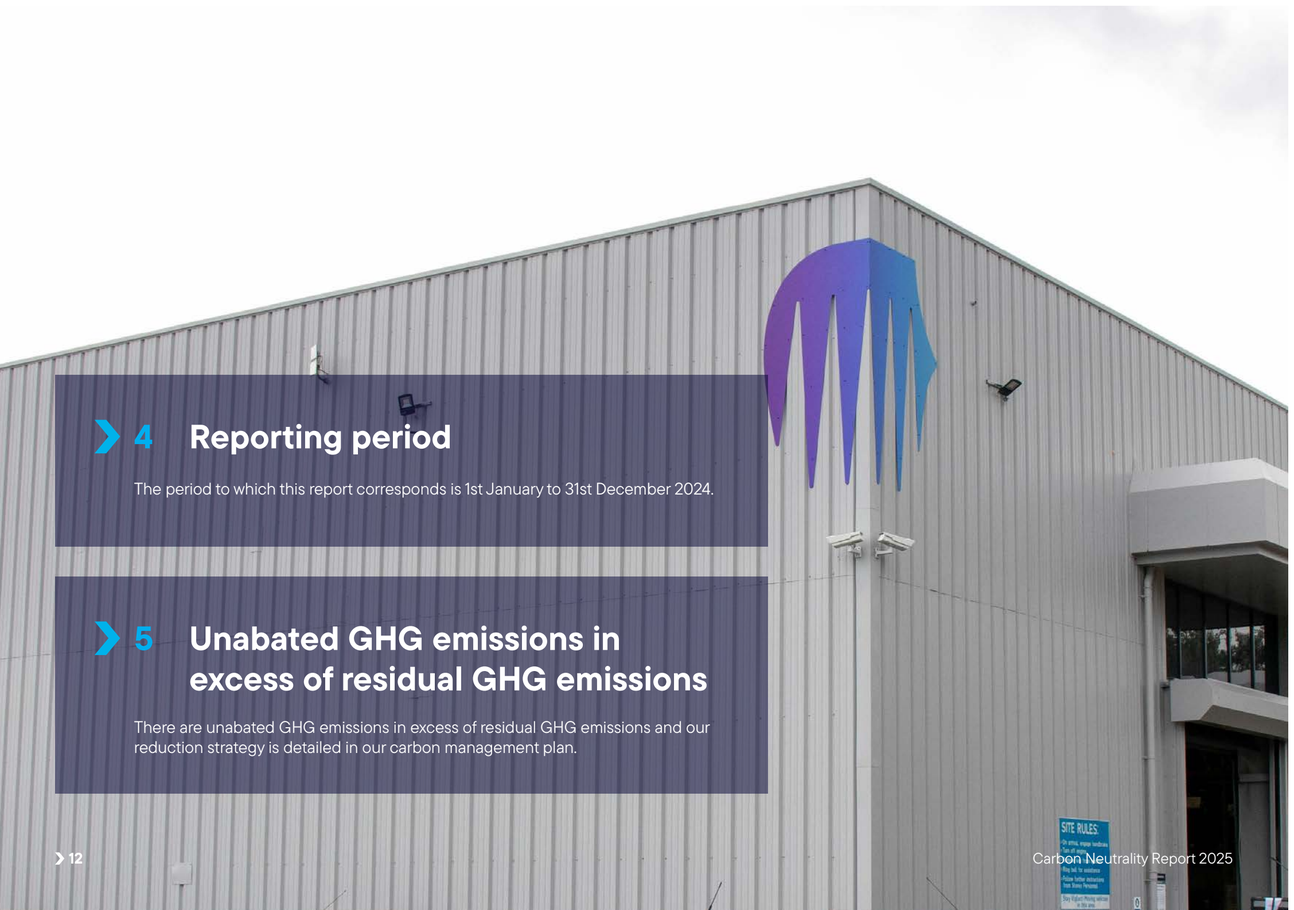
Target date for implementation	Action	Target	Progress
Short term			
2024/2025	Implement ISO 14068 and offset all Scope 1, 2 and applicable Scope 3 carbon through quality offsets.	Achieve carbon neutrality in 2024.	Complete and offset 11437 tonnes of CO2e.
2024	Replace heating/cooling in Ocean House.	Achieve electrification in 80% of Sonardyne facilities. 19th August 2024 completion.	Complete Avoided 55 tCO2e (within 2024 carbon footprint).
2026	Implement sustainable travel policy.	20% reduction of travel related carbon (flights, hotels, taxi's etc) by 2030 (against 2024 carbon) 20% reduction is 133.63. Therefore: 623 (rounded) tCO2e (by 2030).	

Target date for implementation	Action	Target	Progress
Short term			
2028	Electrify transport fleet.	All pool cars and light commercial vehicles to be electric by end of 2028. No diesel engine vehicles. Reduce by 9.43* from 12.5 to 3.07* tCO2e (The remaining carbon relates to electricity charging of EVs). *Estimated.	Electric Vans purchased.
2030	Implement sustainable procurement practices.	100% of purchases subject to sustainable procurement policy.	

Target date for implementation	Action	Target	Progress
Short term, long term to residual			
2024 – 2040	Run supplier engagement workshops and encourage quantification and reduction.	Carry out workshops for suppliers. 10% reduction of supply chain (scope 3, category 1) emissions by 2027 and 80% by 2034. Reduce by 996.50 to 8968.5 tCO2e by 2027. Reduce by 7174.80 from 8969 to 1794 tCO2e by 2035.	
2036	Increase electricity self-generation.	50% by end of 2036 across all sites. To be defined following suitability appraisal.	

Our reduction strategy is to identify reduction opportunities from direct emissions but focus more resources towards finding reductions in our value chain through engagement workshops and encouragement of quantification of supplier carbon footprint.

The target year when only residual carbon emissions remain is 2040.



4 Reporting period

The period to which this report corresponds is 1st January to 31st December 2024.

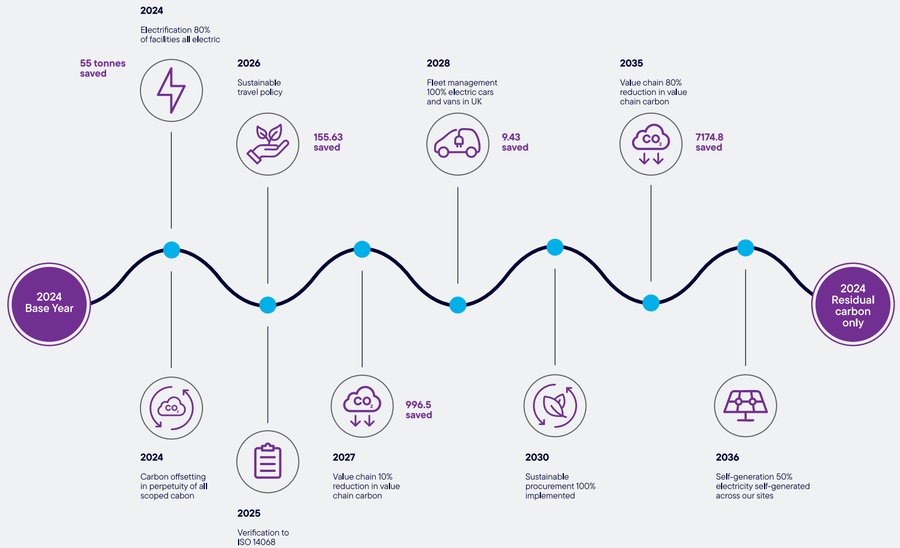
5 Unabated GHG emissions in excess of residual GHG emissions

There are unabated GHG emissions in excess of residual GHG emissions and our reduction strategy is detailed in our carbon management plan.

6 Carbon neutral pathway

Sonardyne's carbon neutral pathway is shown below:

Our timeline to reach residual carbon only status



tCo2e								
2024	2024	2025 / 26	2027	2028	2030	2035	2036	2040
11437	(in base year)	11281.37	10284.87	10275.44	(unknown)	3100.64	(unknown)	3100.64

7 Baseline

The baseline year has been altered from 2022 (8,859 tonnes tCO2e) to 2024.

This is because of the following changes to indirect emissions:

Addition of Brazil, Singapore and Houston relevant emissions.

Transmission and distribution.

Well-to-tank emissions.

A better understanding of purchased goods and services.

8 Carbon footprint of Sonardyne

The calculated carbon footprint of Sonardyne UK activities for 2024 is 11,436.54 tCO2e (using market based approach to mains electricity and gas at Sonardyne facilities).

Scope 1 (Direct)	tCO2e	Scope 2	tCO2e	Scope 3 (Indirect)	tCO2e
Gas consumption	0	Mains electricity	55.36	Personal business mileage	3.59
Pool car fuel	14.08	**Indirect**	55.36	Air travel/Hotels/Hire cars	778.14
Boat fuel gas oil	30.97		55.36	Pre- booked taxi's	8.24
Boat fuel petrol	1.76		55.36	Purchased goods and services	9,964.89
Total	46.81	Total	55.36	Employee commute	353.1
				Transmission & distribution	27.68
				Waste generated from operations	14.65
				Well to tank electricity	77.42
				Well to Tank boat gas oil	7.04
				Well to Tank boat petrol	0.49
				Well to Tank taxi's	2.05
				Well to Tank air travel	92.7
				Well to Tank personal business miles	0.92
				Well to Tank pool cars	2.05
				Total	11,334.37

Location based electricity calculation for 2024 is 274.32 tCO2e (not used in the above calculation).

Location based gas calculation for 2024 is 30.14 tCO2e (not used in the above calculation).

Taking the location-based methodology (including the figures above) the total footprint would be 11,741 tCO2e. However, this does not consider the purchase of renewable electricity and gas as appropriate.

Grand Total **11,436.54**

9 Aviation or shipping activities

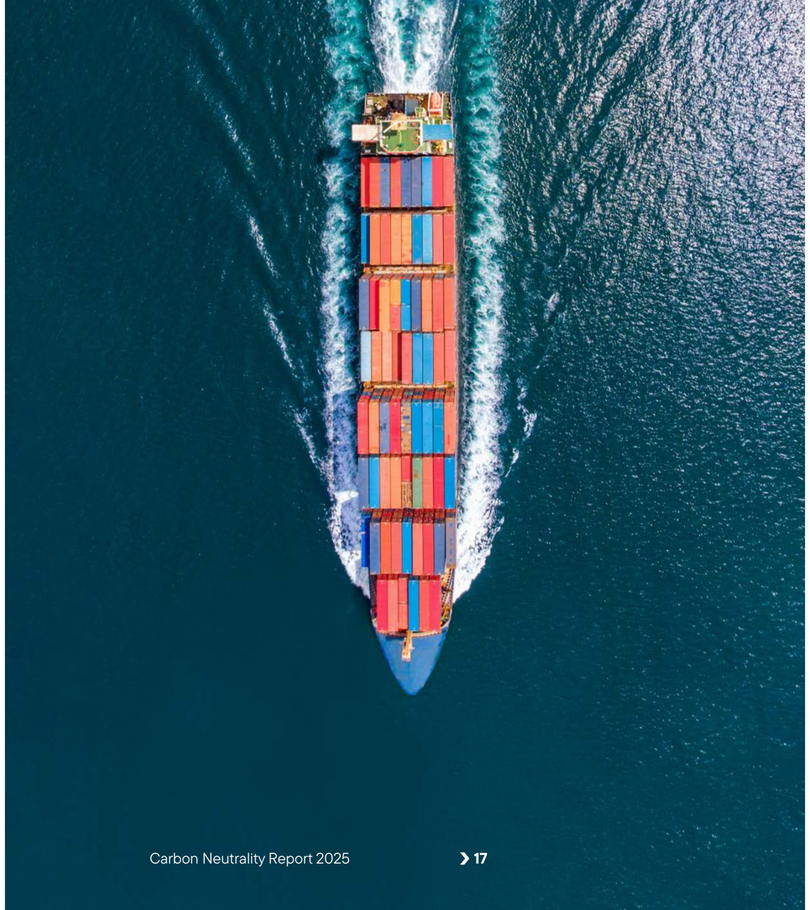
There are no significant aviation or shipping activities, but we have included non-GHG climate impacts (such as those arising from water vapour, contrails, soot and black carbon) in our carbon footprint calculations as published by the Department for Energy and Net Zero and DEFRA.

10 GHG removals within the boundaries of Sonardyne

There have been no GHG removals within the boundaries of Sonardyne.

11 GHG removal reversal

There have been no GHG removal reversals noted during the reporting period.

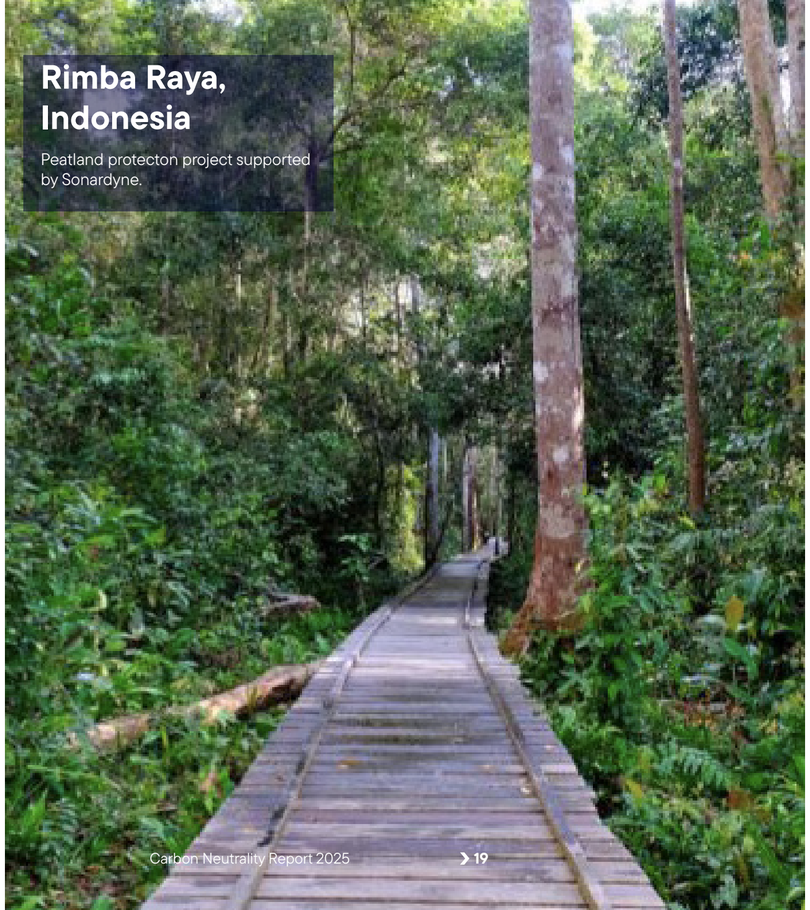


12 Justifications for exclusions from quantification

Several categories of Scope 3 (indirect) emissions are excluded from quantification for the following reasons:

Scope (according to GHG Protocol/ direct or indirect emission)	Source of GHG emissions (tCO2e)	Target	Explanation
Scope 3 Cat 2 - Indirect	Capital Goods.	Items purchased that are “capital” and used.	This includes items such as machinery purchased and used. However, the emissions have been included within Scope 3 Cat 1.
Scope 3, category 4 -Indirect	Upstream transportation and distribution.	Air, road, sea, rail transportation vehicles.	Transport and distribution element of products and services purchased. However, as the spend method (total invoice value excluding VAT) is being used in Scope 3 Cat 1 “Purchased good and services” and there is no way currently to differentiate between the cost of product/ service and transport & distribution, Cat 4 is omitted as it may double count CO2e.

Scope (according to GHG Protocol/ direct or indirect emission)	Source of GHG emissions (tCO2e)	Target	Explanation
Scope 3, category 8 - Indirect	Upstream leased assets.	Emissions from energy usage of leased assets (Ocean House & Aberdeen).	Includes assets that are leased. However, the emissions from Ocean House are reported in scopes 1 and 2 and Aberdeen are reported in scope 2. The emissions from this category are therefore omitted.
Scope 3, category 9 - Indirect	Downstream transport and distribution.	Air, road, sea, rail transportation vehicles.	Includes emissions from transport and distribution of sold products e.g., warehouse and distribution centres, retail, air, rail, road and marine transport. The companies that undertake this for the organisational boundary are currently within Cat 1 “Purchased good and services”. The emissions from this category are therefore ignored to prevent double counting.
Scope 3, category 10 - Indirect	Processing of sold product.	Products sold for further processing.	No products have further modification before sale therefore this category is excluded.

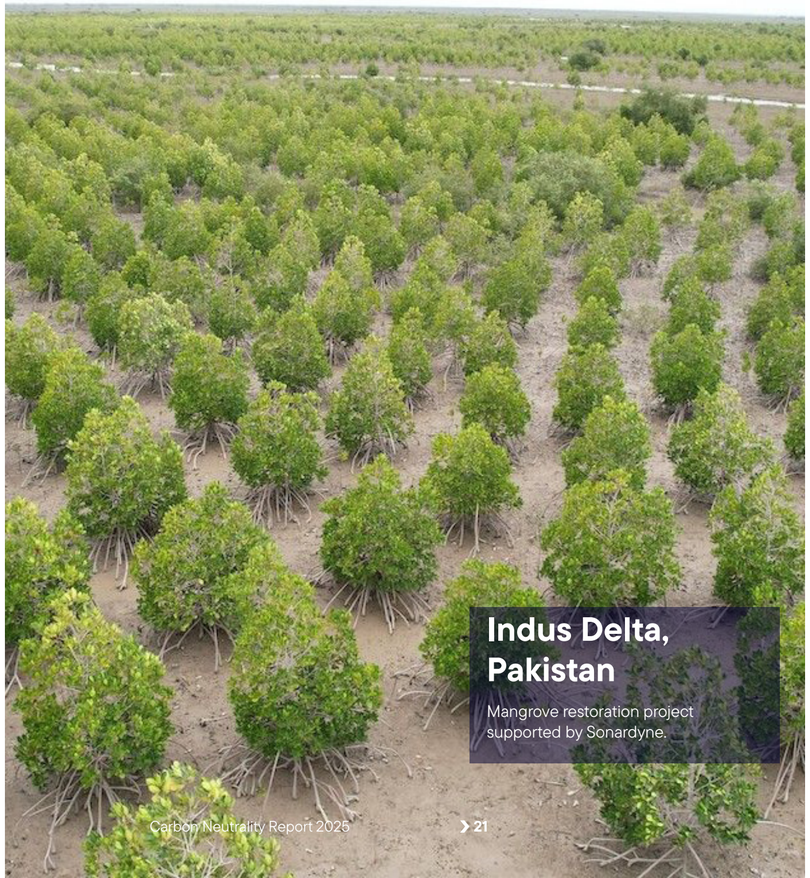


Rimba Raya, Indonesia

Peatland protecton project supported by Sonardyne.

Scope (according to GHG Protocol/ direct or indirect emission)	Source of GHG emissions (tCO2e)	Target	Explanation
Scope 3, category 11 - Indirect	Use of sold product.	Products that are used by Sonardyne’s customers.	Sold products are predominantly bespoke dependent upon the application. They have either long life batteries (the type is dependent upon their design) located in sealed underwater equipment and therefore a zero emission in use. They can be wired into marine applications where their electrical usage would be so small that they couldn’t be monitored in the context of the vessel in which they are installed. This would be inaccessible and impossible to monitor. They can be plugged into customers energy sources, but they are varied and inaccessible to Sonardyne for monitoring of energy usage (applications may be installed in secure customer environments).

Scope (according to GHG Protocol/ direct or indirect emission)	Source of GHG emissions (tCO2e)	Target	Explanation
Scope 3, category 12 - Indirect	End of life treatment of sold product.	Waste disposal of sold product.	If a product is on the bottom of an ocean/ marine environment it may be left by the customer at the end of its use. Therefore, the emissions cannot be accounted for. If it is brought back to Sonardyne emissions would be included within Scope 3 (Indirect) Cat 1 - Purchased goods and services/ Scope 3, category 5 Waste - Indirect. If it is within the installation of a ship or another marine application the end of life will be when that is dismantled. There is no way to keep track of dismantling/ scrapping of ships etc. When a customer has finished with Sonardyne's product the customer would dispose of in line with the particular country's legislation. It is not possible to track when a customer has finished with a Sonardyne's product.



Indus Delta, Pakistan

Mangrove restoration project supported by Sonardyne.

Scope (according to GHG Protocol/ direct or indirect emission)	Source of GHG emissions (tCO2e)	Target	Explanation
Scope 3, category 13 - Indirect	Leased assets.	Emissions from the operation of assets that are owned and leased.	No assets owned/leased.
Scope 3, category 14 - Indirect	Franchises.	Grant licence to sell or distribute Sonardyne's goods.	No franchised operated.
Scope 3, category 15 - Indirect	Investments.	Investors (companies that make an investment with the objective of making a profit) and financial services companies.	Not appropriate to Sonardyne's business.

13 Reference to carbon footprint quantification methodology

Sonardyne has identified and quantified its carbon footprint (GHG emissions and removals) following the principles, requirements and guidance set out in ISO 14064 and the Greenhouse Gas Protocol and its Technical Guidance.

Sonardyne has reported its greenhouse gas emissions using both market based and location based approaches in the carbon neutrality report for electricity.

The quantification of the greenhouse gas inventory will be summed to represent the carbon footprint of Sonardyne.

Rimba Raya, Indonesia

Peatland protecton project supported by Sonardyne.

The following methodologies have been used to quantify the carbon footprint of Sonardyne.

Scope 1 – Market and location based

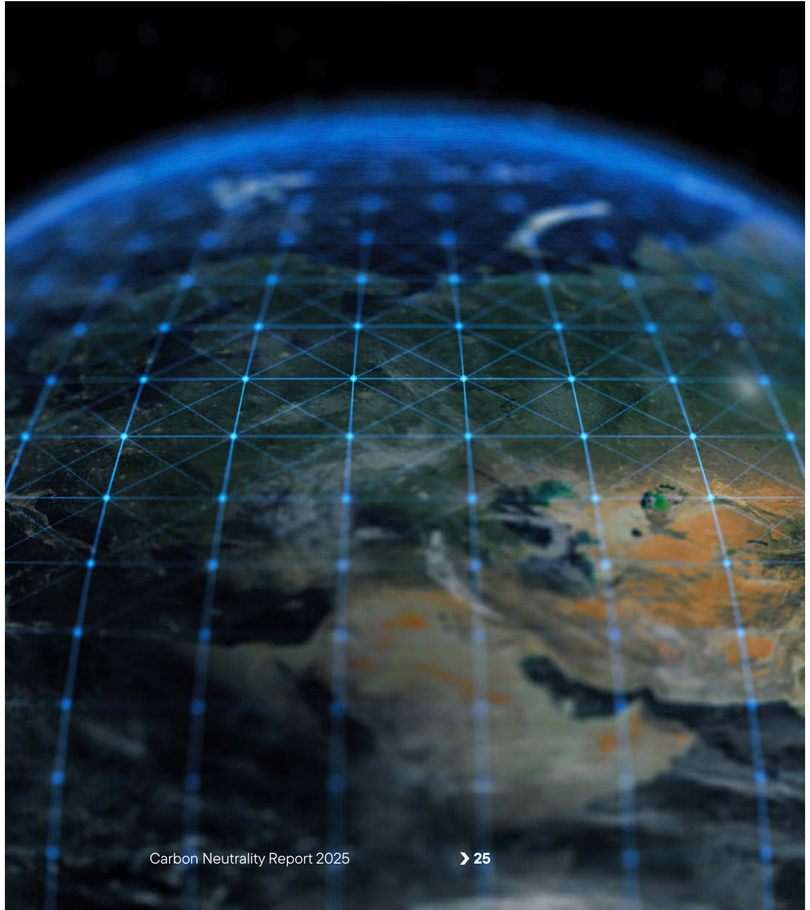
Emission source	Activity data	Calculation method	Calculated carbon (tCO2e) for 2023
Gas use at OH and PLY facilities	Consumption taken from supplier invoices.	Gas is certified green gas from renewable sources.	0 (market based)
Gas use at OH and PLY facilities	Consumption taken from supplier invoices.	kWh's consumed multiplied by DEFRA 2024 (gross CV, 100% mineral blend) converted to CO2 (tonnes).	30.14 (location based)
Pool cars	Litres purchased through fuel card invoices. Houston assumed data.	Litres purchased multiplied by Defra 2024 (Fuels - diesel average biofuel blend) converted to CO2 (tonnes). In Houston 4 x 4 assumed petrol.	14.08
Boat fuel (gas oil)	Litres purchased through marina invoices.	Litres purchased multiplied by Defra 2024 (Fuels – marine gas oil) converted to CO2 (tonnes).	30.97
Boat fuel (petrol)	Litres purchased through Mayflower Marina invoices.	Litres purchased multiplied by Defra 2024 (Fuels – average biofuel blend) converted to CO2 (tonnes).	1.76

Scope 2 – Market and location based

Emission source	Activity data	Calculation method	Calculated carbon (tCO2e) for 2023
Location based electricity for appliances, HVAC and vessels in UK, Brazil, Singapore and Houston.	Consumption taken from supplier invoices.	Purchased kWh's multiplied by Defra 2024 conversion factor (UK electricity) converted to CO2 (tonnes). Overseas utilising Carbon Footprint International 31st July 2024 conversions.	274.32 (not used in final carbon calculation).
Market based electricity for appliances and HVAC.	Consumption taken from supplier invoices.	Supply is certified to come from 100% renewable sources so no calculation.	0.0

Scope 3

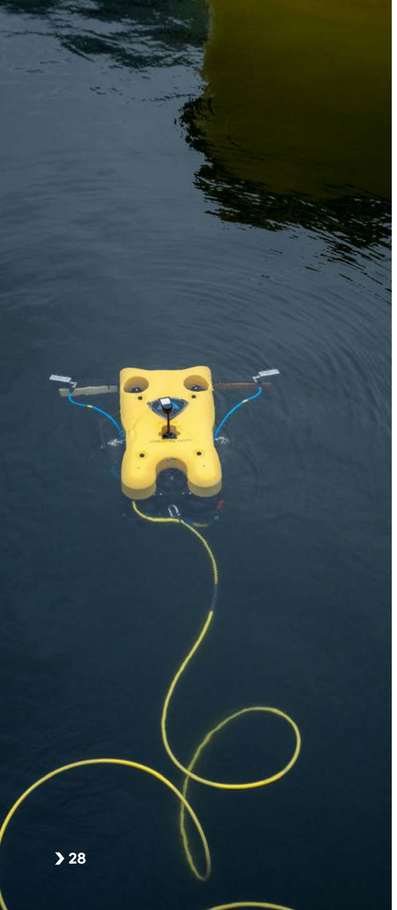
Emission source	Activity data	Calculation method	Calculated carbon (tCO2e) for 2023
Category 1. Purchased goods and services	95% of goods and services purchased. Data from Syspro spend report managed by Finance. SIC code applied to each supplier. Overseas companies allocated same sector UK SIC codes where possible.	Spend by supplier multiplied by Defra 2020 SIC code conversion factor and adjusted for inflation, converted to CO2 (tonnes). Inflation between 2020 and 2024 calculated and taken into account.	9,964.89



Emission Source	Activity data	Calculation method	Calculated carbon (tCO2e) for 2023
Category 2. Capital goods	Spend from Syspro and finance reports.	Emissions calculated within Category 1 purchased goods and services	0
Category 3. Fuel and energy related	Purchased kWh's from supplier invoices.	Electricity consumption multiplied by Defra 2024 conversion factor (transmission and distribution and WTT), converted to CO2 (tonnes). Overseas utilising Carbonfootprint.com conversions as appropriate.	226.41
Category 4. Upstream transport and distribution	Currently unable to differentiate between the cost of product and transport and distribution.	Emissions calculated within Category 1 purchased goods and services.	0
Category 5. Waste generated in operations	Weight of waste transferred from organisational boundaries (date from waste operators).	Weight of waste multiplied by Defra 2024 conversion factor for type of waste (waste disposal), converted to CO2 (tonnes).	14.65

Emission source	Activity data	Calculation method	Calculated carbon (tCO2e) for 2023
Category 6. Business travel - flights	KM's travelled .	KM's travelled multiplied by Defra 2024 conversion factor (business travel – air) depending on class, distance travelled etc), converted to CO2 (tonnes).	752.22
Category 6. Business travel – pre-paid hotels	Number of nights stayed in hotel as stated in monthly supplier reports.	Number of nights multiplied by Defra 2024 conversion factor (hotel stay) supplemented with data from: hotelfootprints.org	23.39
Category 6. Business travel – hire cars	Cost of hire car as per supplier monthly report (UK SIC code 77110 applied).	Hire car spend multiplied by 2020 SIC code conversion factor, converted to CO2 (tonnes).	2.53
Category 6. Business travel – pre-booked taxis	Calculating the km between the origin and destination by Google Maps.	km's travelled multiplied by Defra 2024 conversion factor (business travel – land – regular taxi) converted to CO2 (tonnes).	8.24

Emission source	Activity data	Calculation method	Calculated carbon (tCO2e) for 2023
Category 6. Personal business mileage	Data from expense claims.	Claimed mileage multiplied by Defra 2024 conversion factor (business travel land – upper medium unknown fuel), converted to CO2 (tonnes).	3.59
Category 7. Employee commute	Distance travelled per day by each employee calculated using Google maps, fastest route. Employee postcode used supplied by HR.	km's travelled multiplied by Defra 2024 conversion factor (Passenger vehicles -dependent on transport type), converted.	353.1



14 Changes to quantification methodology used previously

Changes to previously used quantification methodology are:

- The annual change of conversion factors issued by various agencies.
- The baseline has been changed to 2024.
- Inclusion of Brazil, Singapore and Houston into scope.
- Houston assumed data on Pool Cars.
- Scope 3 Category 1, applicable SIC codes applied to overseas companies and inflation between 2020 and 2024 calculated and considered.
- Use of transmission and distribution and Well to Tank conversions. Overseas utilising Carbonfootprint.com conversions as appropriate.
- Business Travel pre-paid hotels supplemented with information from www.hotelfootprints.org
- Category 6. Business travel – pre-booked taxis calculation used the km between the origin and destination by Google Maps not data from supplier invoices.

15 GHG emission removal factors used

No GHG emission removal factors have been used.

16 Impact of uncertainties

The Greenhouse Gas Protocol (GHGP) establishes a framework to guide corporate standards for carbon accounting and reporting based on five principles:

Emission source		Activity data	Calculation method
1.	Accuracy	Accuracy is high for the UK for market and location scope 1 and 2 calculations. Recognised and published carbon conversions have been used. 2024 is the first year for overseas determination and reporting of the carbon footprint. Certain informed assumptions have been made as to the data reported. Scope 3 category 1 is based upon the financial spend method using SIC code designation for the type of business. In the UK each business has at least one SIC code. Overseas businesses have been allocated a SIC based upon the principal of “best fit”.	Medium to high
2.	Completeness	Based upon the boundary and the records of assumptions made the date is complete.	High
3.	Consistency	Data has been recorded and converted consistently.	High
4.	Transparency	The resulting report will be transparent based upon the principles of 14068.	High
5.	Relevance	Carbon calculations are relevant to data collection and carbon conversion maturity.	High

17 GHG emission reductions and removal enhancements

Emission reductions (Reducing the amount of greenhouse gases released into the atmosphere).

In 2024 (calendar year) solar across buildings has generated some 436MWh. Whilst this is not expected to increase energy efficiency, per se, in terms of a reduction of energy consumed, it will serve to de-carbonise the source of energy. Moreover, as a 'self-generated' source of energy, it is anticipated that the long-term payback will serve to reduce energy costs and minimise the impact of potential market instability from energy suppliers.

Removal of emissions (Actively removing existing greenhouse gases, primarily carbon dioxide, from the atmosphere).

Removal of emissions will be from the use of purchased 'offset' carbon credits.

18 Carbon crediting programmes and GHG projects

The carbon crediting programmes Sonardyne chose to offset against are as follows:

Programme name: Rimba Raya Biodiversity Reserve, Borneo, Indonesia.
Standards: VCS, CCB, SD Vista
Methodology: VM004
The project supports all 17 of the UN Sustainable Development Goals.

In addition, Sonardyne paid for Mangrove Restoration through the Delta Blue Project in Pakistan, which is one of WWF's Global 200 Ecoregions of crucial importance. The area falls within the Green Route of migratory birds and plays a key role in coastal stabilisation and sustenance for local fishing communities in the area. Between 1950-2000, human land use and industrial activity destroyed the biological productivity of the wetland increasing vulnerability for biodiversity and people.

Standards: VCS, CCB
Methodology: VM0033

The project supports 12 of the UN Sustainability Goals.

19 Number of carbon credits

Sonardyne purchased 11,450 carbon credits to offset its stated 2024 carbon footprint (10, 763 in Rimba Raya and 687 in Delta Blue).

20 Corresponding adjustments

Verra does not require corresponding adjustments for projects registered with the VCS programme.

21 Carbon credit confirmation

https://registry.verra.org/myModule/rpt/myrpt.asp?r=206&h=296106

https://registry.verra.org/myModule/rpt/myrpt.asp?r=206&h=193967

https://registry.verra.org/myModule/rpt/myrpt.asp?r=206&h=283415

https://registry.verra.org/myModule/rpt/myrpt.asp?r=206&h=288563

https://registry.verra.org/myModule/rpt/myrpt.asp?r=206&h=250726

https://registry.verra.org/myModule/rpt/myrpt.asp?r=206&h=257390

22 Time period of carbon credit generation and retirement

Rimba Raya	From vintage	To vintage	Date of retirement	Amount (TCO2e)
https://registry.verra.org/myModule/rpt/myrpt.asp?r=206&h=296106	01/01/2018	31/12/2018	09/06/2025	3401
https://registry.verra.org/myModule/rpt/myrpt.asp?r=206&h=193967	01/01/2017	22/06/2017	09/06/2025	1306
https://registry.verra.org/myModule/rpt/myrpt.asp?r=206&h=283415	01/01/2018	31/12/2018	09/06/2025	3028
https://registry.verra.org/myModule/rpt/myrpt.asp?r=206&h=288563	01/01/2018	31/12/2018	09/06/2025	3028

Delta Blue	From vintage	To vintage	Date of retirement	Amount (TCO2e)
https://registry.verra.org/myModule/rpt/myrpt.asp?r=206&h=250726	01/01/2020	31/12/2020	13/06/2025	500
https://registry.verra.org/myModule/rpt/myrpt.asp?r=206&h=257390	01/01/2018	31/12/2018	13/06/2025	187

23 Verification opinion

Based on the verification scope, the methodology described and the verification work performed, we are satisfied that the verified information and data contained within the Carbon Neutrality Report 2025, Carbon Neutrality Management Plan and supporting evidence are accurate, reliable, comparable and provide a fair representation of Sonardyne's activities in 2024.

Furthermore, based on the results of our verification process and the limited assurance basis of the verification, Sonardyne has achieved carbon neutrality for the financial year 2024 from a review of its Greenhouse Gas Footprint, Carbon Neutrality Report 2025, Carbon Neutrality Management Plan and supporting evidence. This is on the basis that the unabated carbon emitted for 2024 (based on a market calculation) after reductions has been wholly offset by carbon credits of legitimate provenance.

Samantha Stanfield BSc(Hons) \ Lead Verifier
Oakbridge Management System Specialists Ltd

24 Future carbon neutrality achievement and maintenance

Carbon neutrality will be achieved annually using purchased offsets whilst the company works to reduce its carbon emissions to residual only.

Sonardyne

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