Sealand Projects Carbon Emissions Inventory Report

September 2022- August 2023, Reporting Period

18/09/2023

Rev	Reason for Issue	Date	Originator	Checked	Approval
A1	Issued for Review	06/09/2023	AJO	OTO	APE
B1	Reissued for Review	09/09/2023	AJO	OTO	APE
C1	Issued to Client	18/09/2023	AJO	OTO	APE

	SPL-PF-047

Sealand Projects, Bishop House, 50 Carden Place, Aberdeen, AB10 1UP

Contents

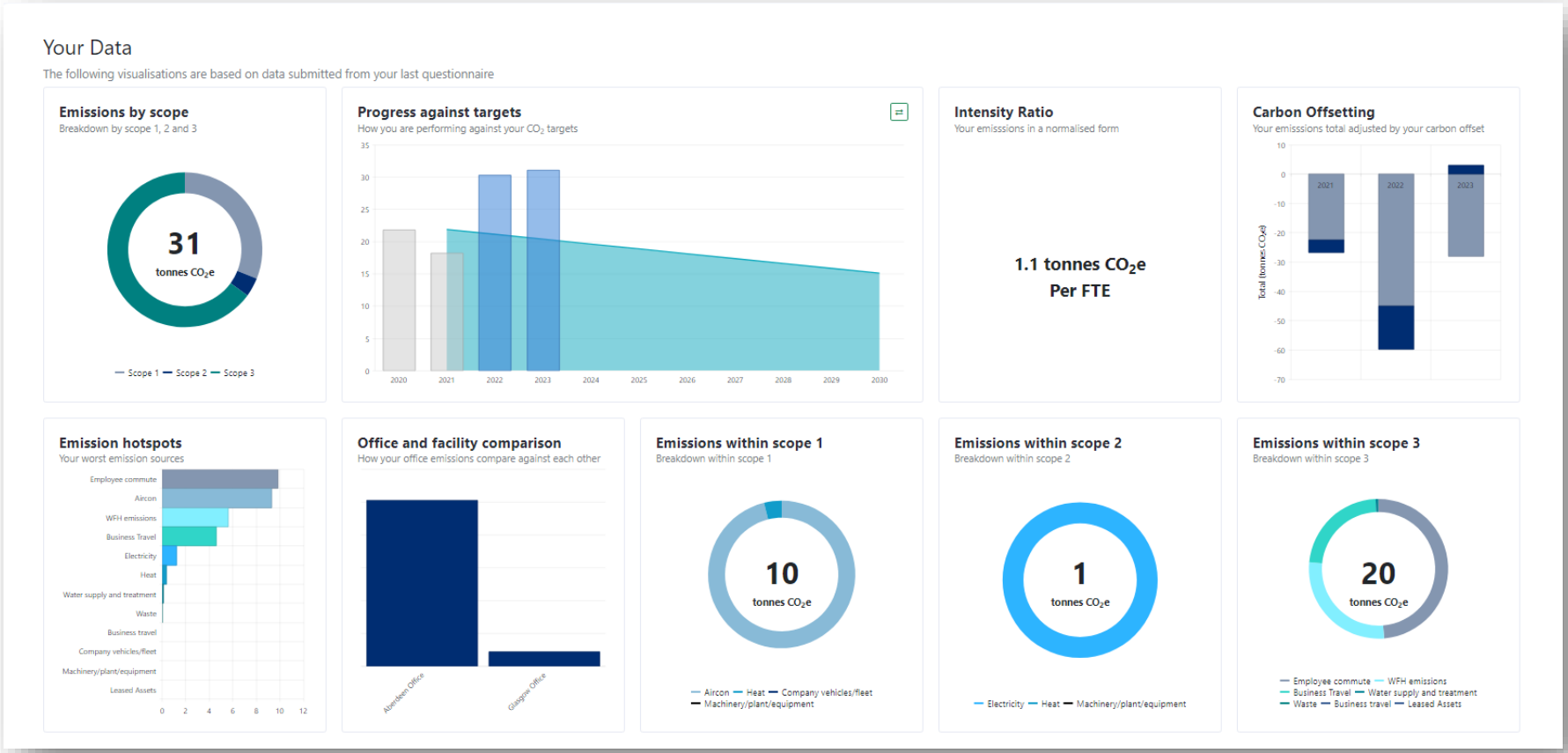
Executive Summary

This carbon emissions inventory report has been produced by Sealand Projects Ltd. The chosen reporting period follows the financial year running from September 2022- August 2023. The emission totals from this period can be seen in Table 1-1.

Table 1-1, Sealand Projects Emission Totals 2022-23

Emission category	Figure
Total annual emissions for 2022-23	**31.1 t CO_{2e}**
Scope 1 total	**9.7 t CO_{2e}**
Scope 2 total	**1.2 t CO_{2e}**
Scope 3 total	**20.2 t CO_{2e}**
Carbon Intensity, based on Full-time Staff (FTE)	**1.1 t $CO_{2e\ per}$ FTE**
Total Emissions Equivalent to UK Cars on the Road Annually	**14.8 Cars**

The dashboards below show a summary of Sealand's carbon emission breakdown during the reporting period.


Your Data
The following visualisations are based on data submitted from your last questionnaire
Emissions by scope
Breakdown by scope 1, 2 and 3
31
tonnes CO2e
Scope 1
Scope 2
Scope 3
Progress against targets
How you are performing against your CO2 targets
Intensity Ratio
Your emisssions in a normalised form
1.1 tonnes CO2e
Per FTE
Carbon Offsetting
Your emisssions total adjusted by your carbon offset
Total (tonnes CO2e)
Emission hotspots
Your worst emission sources
Employee commute
Aircon
WFH emissions
Business Travel
Electricity
Heat
Water supply and treatment
Waste
Business travel
Company vehicles/fleet
Machinery/plant/equipment
Leased Assets
Office and facility comparison
How your office emissions compare against each other
Aberdeen Office
Glasgow Office
Emissions within scope 1
Breakdown within scope 1
10
tonnes CO2e
Aircon
Heat
Company vehicles/fleet
Machinery/plant/equipment
Emissions within scope 2
Breakdown within scope 2
1
tonnes CO2e
Electricity
Heat
Machinery/plant/equipment
Emissions within scope 3
Breakdown within scope 3
20
tonnes CO2e
Employee commute
WFH emissions
Business Travel
Water supply and treatment
Waste
Business travel
Leased Assets

1 Definitions, Abbreviations & References

1.1 Table of abbreviations:

Abbreviation	Description
kg CO_2e	Kilogram of carbon dioxide equivalent
CO_2e	Carbon dioxide equivalent
t CO_2e	Tonne of carbon dioxide equivalent
FTE	Full Time Equivalent
SECR	Streamlined energy and carbon reporting
GHG	Greenhouse gas
BEIS	Department for Business Energy & Industrial Strategy
SI	International System of Units
kWh	Kilowatt hour
km	Kilometre
kg	Kilogram
kW	Kilowatt
GWP	Global warming potential

1.2 Definitions

Phrase	Explanation
Greenhouse gas	Gaseous constituent of the atmosphere, both natural and anthropogenic, that absorbs and emits radiation at specific wavelengths within the spectrum of infrared radiation emitted by the Earth's surface, the atmosphere, and clouds.
Direct GHG emission	GHG emissions from GHG sources owned or controlled by the organisation.
Indirect GHG emission	GHG emission that is a consequence of an organisation's operations and activities, but that arises from GHG sources that are not owned or controlled by the organisation.
Global warming potential	Based on radiative properties of GHGs measuring the radiative forcing following a pulse emission of a unit mass of a given GHG in the present-day atmosphere integrated over a chosen time horizon, relative to that of carbon dioxide (CO2).
Carbon dioxide equivalent	Unit for comparing the radiative forcing of a GHG to that of carbon dioxide.
Intensity ratio	Defining emissions data in relation to an appropriate business metric, such as turnover or full-time staff equivalent.
Comparison figure	An appropriate business metric to compare emission data.
Organisational boundary	Grouping of activities or facilities in which an organisation exercises operational or financial control or has an equity share.
Reporting boundary	Grouping of GHG emissions reported from within the organisational boundary as well as those significant indirect emissions that are a consequence of the organisation's operations activities.
Primary data	Quantified value of a process or an activity obtained from direct measurement, or a calculation based on direct measurements
Secondary data	Data obtained from sources other than primary data, such sources can include databases published literature validated by competent authorities.
Level of assurance	Degree of confidence in the GHG statement

Phrase	Explanation
Scope 1	Direct emissions that come direct from your organization's owned or controlled source, such as company vehicles or fuel combusted onsite, or emissions produced from manufacturing processes.
Scope 2	Indirect emissions generated from purchased energy- including electricity, steam, heating, and cooling.
Scope 3	All indirect emissions not included in scope 2 that occur in the value chain of the reporting company, including both upstream and downstream emissions.

1.3 Codes, regulations, and standards

Code or Standard	Explanation
ISO 14064 Standard	Details the principles and requirements for designing, managing, and reporting organisation-level GHG inventories. It includes requirements for determining GHG emission boundaries, quantifying an organization's GHG emissions and identifying specific company actions or activities aimed at improving GHG management.
GHG Protocol	The GHG Protocol Corporate Standard provides standards and guidance for companies and other types of organizations preparing a GHG emissions inventory.
Streamlined Carbon & Energy Reporting (2019)	Legislation introduced in 2019 requiring large companies to disclosure their annual carbon emissions, guidance also provides a framework in which companies should disclose emissions.
Energy Savings Opportunities Scheme (ESOS)	The ESOS Regulations 2014 is a mandatory energy assessment scheme for organisations in the UK that meet the qualifying criteria.

1.4 Third party references

Ref	Author	Document Title
6.	Skillet, L., and Ventress, l. (2020)	Homeworking Emissions Whitepaper

1.5 Sealand Projects references

Ref	Document Number	Document Title
7.	SPL-PROC-048	Calibration Procedure

2 Introduction

Sealand Projects has ambitious targets in place to become an exemplar business for sustainability and to meet Net Zero by 2040. The organisation has already implemented several carbon reduction measures across business activities.

Sealand's baseline report was published in 2021 and measured the emissions inventory between September 2019- August 2020. This is used as a point of reference for subsequent carbon reports and carbon reduction targets. This report captures carbon emissions from the 12-month period between September 2022- August 2023, which follows Sealand's financial year and marks Sealand's fourth annual carbon report.

The following report finds that the top three emission hotspots for Sealand during the reporting period were attributed to Employee Commute (scope 3), Aircon (scope 1), and Work from Home (scope 3).

The next stage of Sealand Project's program will include the development of a Carbon Reduction Workshop and formalised Carbon Reduction Plan, focusing on how further carbon reduction measures can be implemented to meet the Net Zero target of 2040.

3 General Information and Scope

3.1 Purpose of the report

Annual carbon inventory report of Sealand Project's GHG emissions and energy consumption.

3.2 Inventory date and version

This report includes Sealand's emission inventory for the financial year running from September 2022- August 2023.

3.3 Intended users

Stakeholders of Sealand Projects.

3.4 Scope of the business & size

Sealand Projects is a consultancy business operating across two facilities, a head office in Aberdeen and a smaller office located in Glasgow. The business also has several staff who are fully remote workers.

Within the reporting period Sealand had an annual turnover of £XXX million and approximately 28 full-time staff.

3.5 Previous carbon reports and methodology

This report marks Sealand Project's fourth Carbon Inventory Report.

3.6 Proposed frequency of reporting

Annual disclosure of GHG reports.

3.7 Disclaimer

This report has been created in accordance with the ISO 14064-1:2018[3] standard.

3.8 Assurance

The following sub-sections outline the provisions in place to ensure the verification of emission data included within this report.

3.8.1 Assurance of software portal

Sealand's software undergoes an in-house calibration process[7] annually, this is carried out by Sealand's experienced analysis team. Further to this, emissions factors at the back office of the software are updated upon DEFRA's release to ensure accurate and verifiable data.

3.8.2 Assurance of project data output

Sealand's Net Zero team and Software Portal follows the ISO 14064[3] and GHG Protocol [1] when carrying out GHG inventory calculations and reporting. In addition, internal verification of data output is run through our GHG inventory excel workbook, to assure software results.

3.8.3 Third party verification of results

The methodology and data collection carried out within this scope followed the ISO 14064[3] standard and therefore, if desired, could be third party verified.

4 Compliance Threshold

The Streamlined Energy and Carbon Reporting Regulation (SECR) and the Energy Savings and Opportunity Scheme (ESOS) are regulatory schemes the UK Government has put in place to target a reduction in businesses impact on the environment.

4.1 SECR or ESOS Compliant

Streamlined Energy and Carbon Reporting (SECR)[2] compliance requirements are met by Company in a year in which it satisfies two or more of the following requirements:

- Annual turnover of £36million or more
- Balance sheet total assets of £18 million or more
- 250 employees or more

Energy Savings Opportunity Scheme (ESOS) [4] is required for companies who satisfy one of the following criteria:

- 250 employees or more
- Annual turnover of £44.1 million
- Balance sheet of over £37.9 million

Based on Sealand Project's annual turnover of £XXXM and 28 full-time employees during the 2022-23 reporting period, the business falls below well below SECR [2] and ESOS [4] compliance thresholds and it is not a regulatory requirement to report on annual carbon emissions alongside yearly accounts. However, Sealand's board desire to set an exemplar standard for sustainability and have chosen to voluntary carbon report since 2021.

It is noteworthy to mention that this report satisfies SECR[2] reporting requirements.

5 Organisational Boundaries

5.1 Identifying boundaries of the organisation

Sealand Projects has reported on all emission scopes under which it has financial and operational control. It should be noted that Sealand operates within two sublet offices and therefore, direct control over energy efficiency measures and facilities management is restricted. Within Sealand's emissions inventory only full-time staff personnel have been included within 'Employee Commute' and 'Business Travel', as data regarding contractors who work on an inconsistent basis throughout the reporting period was not seem easily accessible or to come under Sealand's reporting responsibility.

5.2 Scope 1, 2 & 3 reporting boundaries

An onboarding exercise was conducted in 2021 to frame the relevant scope 1, 2 and 3 emission sources that Sealand shall report on. These are documented table 5-1.

Table 5-1 Emissions scopes included in this report

Scope 1: Direct	Scope 2: Indirect	Scope 3: Indirect
Aircon	**Purchased Electricity**	**Business Travel**
Gas		**Waste**
		Water
		Employee Commute
		Work from Home

5.3 Disclosure of exclusions

The following emission sources have been excluded from this report as they were determined to be not significant, or they are not applicable to the Sealand's business activities:

A. Emissions from the use stage of the product

B. Emissions from end-of-life stage of product

C. Processing of sold products

D. Purchased goods and services

E. Capital goods

F. Emissions from investments

G. Emissions from franchises

6 Data Collection & Methodology

The following provides statements on the data sources, data quality, and efforts taken to improve data quality for key activities.

6.1 Relied upon dataset.

Where possible primary activity data was collected throughout data collection, with the units supplied included in Table 6-1.

Table 6-1 Client Relied upon dataset.

Emission Source	Unit
Gas	kWh
Aircon	Kg
Imported electricity	kWh
Employee commute	km
Work from home	Hours
Business travel	Km
Waste	Litres
Water	Cm^3

6.2 Data collection method

In regard to facilities utilities use and waste, data was collected from office landlords. Employee data was gathered from a survey set out via Sealand's SEAZERO Carbon Accounting Tool and business travel data was obtained through staff bi-weekly reporting. In some instances, data has been based on estimations from industry standards (see Appendix A).

6.2.1 Employee commute survey

To gain data regarding employees commute and work from home hours, an employee survey was conducted using Sealand's Carbon Management Portal, SEAZERO, where a 100% response rate was gained. The survey was sent out one month prior to this report's publish date.

6.3 Data quality check

An internal review process is conducted by Sealand's Net Zero team, before calculations are carried out. The datasets used were reviewed by Sealand's Net Zero team to check for any missing data or inaccurate data requiring further investigation.

6.4 Assumptions explanation

Several estimates were used during calculations and have been logged in Appendix A.

6.5 Emission calculation methodology

Emissions were calculated using the SEAZERO Carbon Accounting tool, the tool uses the GHG Protocol[1] and ISO 14064[3] standard methodology, with activity- data only. The Carbon Accounting Tool uses government emission conversion factors which are updated annually as per their release. Please see Appendix B for all calculations methods followed throughout this GHG Inventory.

7 Emission Data

7.1 Intensity ratio

Intensity ratios are a way of defining annual emissions data in relation to an appropriate business metric, this allows comparison of emission performance over time. The chosen intensity for Sealand's carbon reporting has been selected as Full-time staff.

7.2 Total footprint, intensity ratio & comparison figure

Table 7-1 Intensity Ratio on FTE

Category	Total
Total footprint	**31.1 t CO_{2e}**
Intensity ratio	**1.1 t CO_{2e}**
Comparison figure: Equivalent to cars on UK roads	**14.8 cars**

Figure 7-1 illustrates the majority of the Sealand's annual emissions can be attributed to scope three emission sources, which is a common finding among businesses who carry out carbon reporting on scope 1, 2 and 3 emission sources.

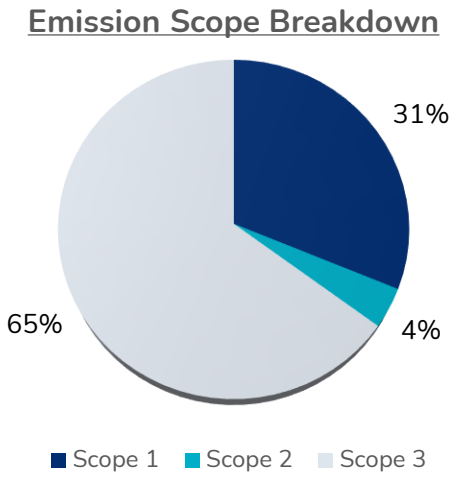


Figure 7-1 Total emissions by scope

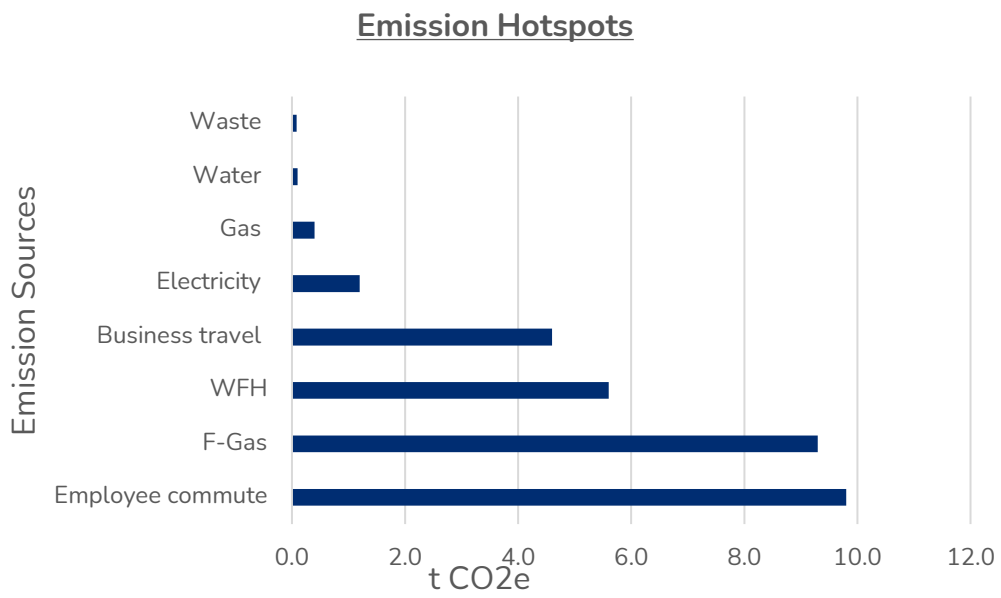


Figure 7-2 Emission hotpots

The above figure lists all Sealand's emission sources for the 2022-23 reporting period. The chart highlights that Employee Commute (scope 3) was the largest source of emissions during reporting period, with Aircon (scope 2) coming in as the second largest and Work from Home (scope 3) being the third biggest contributor to overall emissions during the period.

In comparison to last year's annual carbon reporting (September 2021- August 2022) the emission total figure was very similar to this period, with the previous period's totalling at 30 t CO_{2e}, and during that previous top three emission hot spots were as follows:

1. Aircon
2. Employee Commute
3. Business Travel

Both this reporting period (2022-23) and the previous reporting period (2021-22) saw Aircon (scope 1) as a major contributor to the annual emissions figure, which is unusual for an office-based business operating. Within both the reporting periods, two inefficiencies within the aircon unit for Bishop House were experienced, which required a flush of the system and a full top-up of F-gas. The significant amount of kg of F-gas required for both top-ups has therefore had a direct impact in Sealand's annual reporting figures, for the next 2023-24 reporting period a steep decline in emission relating to Aircon is expected.

7.3 Scope 1 results, kgCO_2e

Table 7-2 Scope 1 Emission Results

Scope 1 Emission Source	Total t CO_{2e}
Scope 1 total	9.7 t CO_{2e}
Aircon	9.3 t CO2e
Gas	0.4 t CO2e

Within scope one, 95.9% could be attributed to emissions occurring due to top-ups of F-gas in the Aircon units, with a small number of emissions occurring due to gas heating within the Glasgow Office (4.1% of scope 1).

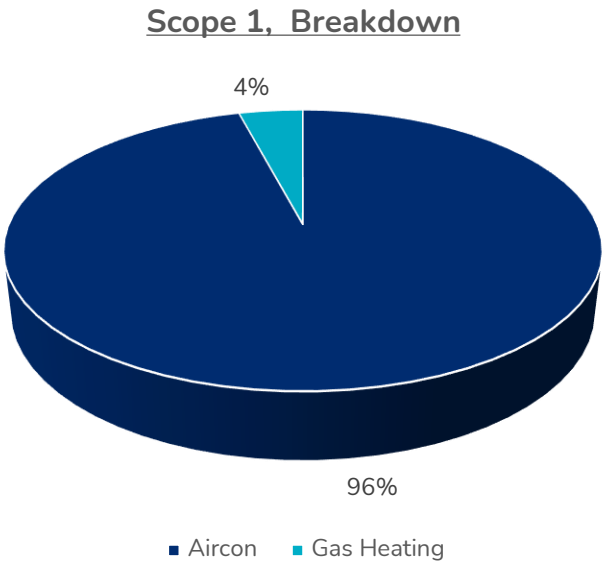


Figure 7-3 Emission breakdown within scope 1

7.4 Scope 2 results, kgCO2e

Table 7-3 Scope 2 Emission Results

Scope 2 Emission Source	Total t CO_{2e}
Total scope 2	1.2 t CO_{2e}

Scope 2 Emission Source	Total t CO_{2e}
Electricity	1.2 t CO_{2e}

Sealand's scope 2 emissions consisted of purchased electricity only which made up 3.9% of the overall annual emissions for the reporting period.

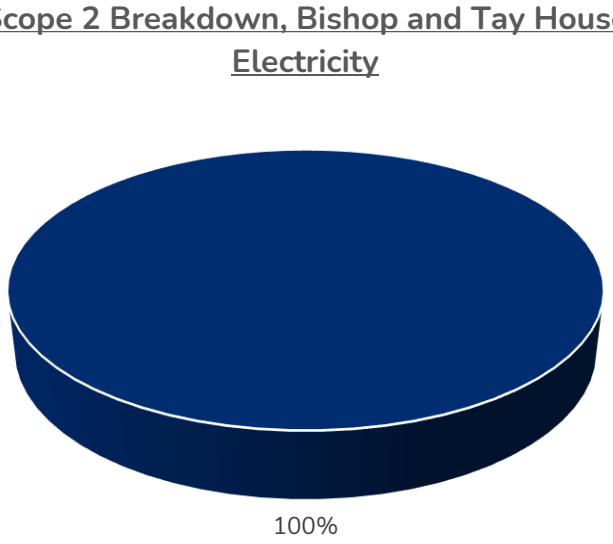


Figure 7-4 Scope 2

7.5 Scope 3 results, kgCO_2e

Table 7-4 Scope 3 Emission Results

Scope 3 Emission Source	Total t CO_{2e}
Source 3 total	20.2 t CO_{2e}
Business travel	4.6 t CO_{2e}
Employee commute	9.8 t CO_{2e}
Waste	0.08 t CO_{2e}

Scope 3 Emission Source	Total t CO_{2e}
Water Supply & Treatment	0.1 t CO_{2e}
Work From Home (WFH)	5.6 t CO_{2e}

Emissions from scope 3 made up 65% of total emissions within the reporting period. The above table lists the emissions measured in the Scope 3 category.

The below pie chart shows the scope 3 breakdown and within this, Employee Commute (31.5% of overall emissions), Work from Home (18% of overall emissions) and Business Travel (14.8% of overall emissions) made up the majority emissions.

Within the Employee Commute Surveys, it was found that 57% of staff's primary method of commute was via a sustainable mode of transport, including walking, cycling or rail. However, within the 43% of staff who do commute via Car, some are required to travel long distances, increasing annual emissions occurring due to Employee Commute.

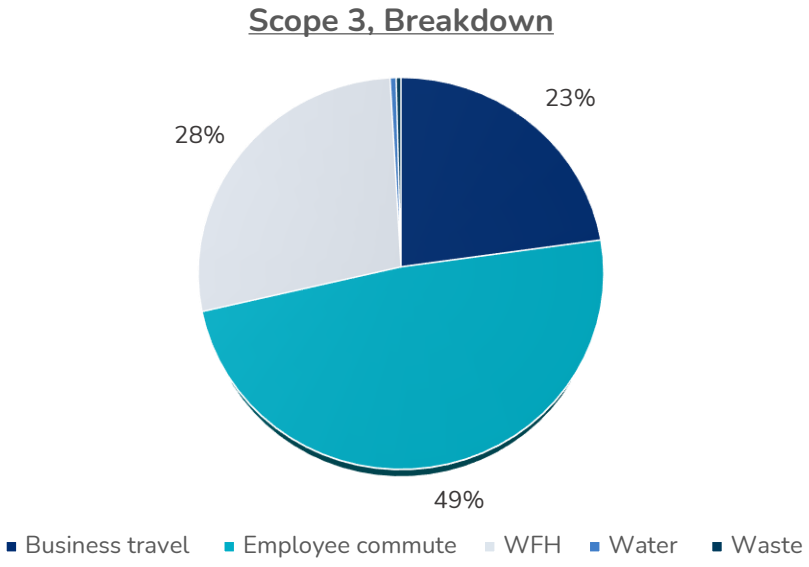


Figure 7-5 Emissions within scope 3

8 Baseline Recalculation

8.1 Statement

To ensure the representativeness of the 2019-20 base-year GHG inventory, Sealand hold the following a base-year review and recalculation procedure to account for substantial cumulative in base-year emissions.

8.2 Change context

For Sealand the appropriate context identifying and describing notable change/s that trigger baseline inventory recalculation, includes:

- A structural change in reporting or organisational boundaries (i.e., merger, acquisition, or divestiture), or expansion
- A change in calculation methodologies or emission factors
- The discovery of an error or several cumulative errors that are collectively substantial.

The organisation shall document base-year recalculations in subsequent GHG inventories.

9 Recommendation on next reporting period

9.1 Next reporting period

September 2023- August 2024.

10 Declaration and Sign Off

This Carbon Report has been completed in accordance with ISO 14064 Standard[3] and associated guidance and reporting standards for Carbon Reports.

Emissions have been calculated and reported in accordance with the publishing reporting methodology from the GHG Protocol[1] corporate standard and uses the appropriate Government emission conversion factors for greenhouse gas company reporting.

This Carbon Report has been reviewed and signed off by the board of directors (or equivalent management body).

Table 11-1, Sealand Projects Emission Totals

Emission category	Figure
Total annual emissions for 2022	**30.1 t CO2e**
Scope 1 total	**9.7 t CO_{2e}**
Scope 2 total	**1.2 t CO_{2e}**
Scope 3 total	**20.2 t CO_{2e}**

Signed on behalf of Sealand Projects Ltd,

Name.....

Date.....

Appendix A Assumptions/ Comment Log

ID	Emission Source	Comments
1	**Gas - Tay House**	Unable to obtain utilities data from Tay House, consumption was based on industry standard usage. https://smarterbusiness.co.uk/blogs/what-is-the-average-business-energy-consumption-in-the-uk/
2	**Electricity – Tay House**	Unable to obtain utilities data from Tay House, consumption was based on industry standard usage. https://smarterbusiness.co.uk/blogs/what-is-the-average-business-energy-consumption-in-the-uk/
3	**Water – Al facilities**	Water use was estimated using 'use of the average office worker' per day which was multiplied by total staff. https://www.south-staffs-water.co.uk/media/1509/waterusebusiness.pdf

Appendix B Emission Factors

ID	Emission Source	Emission Factor
1	Gas	0.18
2	R410a	2088
3	Renewable Electricity	0.025
4	Electricity	0.19338
5	Medium Truck/van (Diesel) per mile	0.37268
6	Small truck/van (diesel) per mile	0.22836
7	Large truck/van (diesel) per mile	0.4101
8	Waste Recycling	21.280
9	Waste landfill	8.883271318
10	Water supply	0.149
11	Water treatment	0.272
12	Car electric (miles)	0
13	Car petrol (miles)	0.27436
14	Car hybrid (miles)	0.19318
15	Car diesel (miles)	0.27492
16	Hotel Stay	10.4

ID	Emission Source	Emission Factor
17	Air Travel	Flight Average Domestic- 0.24587 Flight Average Short Haul – 0.15102 Flight Average Long Haul- 0.19309 Flight Average Internal -0.140625
18	Homeworking	0.34075

Appendix C Calculation Methods

ID	Emission Source	Calculation Method
1	Gas	$kWh\ x\ EF$
2	Aircon (F-gas)	$kg\ x\ EF$
3	Renewable Electricity	$kWh\ x\ EF$
4	Electricity	$kWh\ x\ EF$
5	Waste	$Tonnes\ x\ Type\ of\ waste\ EF$
6	Water	$Cubic\ meter\ x\ water\ supply\ EF$ $Cubic\ meter\ x\ water\ treatment\ EF$
7	Employee commute	Employees were surveyed to gain their total miles of commute throughout the reporting and the type of commute. Appropriate EF were then applied to the commute type. $miles\ x\ appropriate\ EF$
8	WFH	Employees were surveyed on many hours per reporting period they work from home. $Hours\ x\ WFH\ EF$
9	Business travel	Sealand's software calculates the total distance for each entered trip, this is then multiplied by the appropriate EF. EF alter by mode of transport. $Distance\ x\ EF$

Sealand Projects Ltd

2022-23 Carbon Reduction Plan

19/09/2023

Rev	Reason for Issue	Date	Prepared	Checked	Approval
A1	Issued for Review	12/09/2023	AJO	OTO	APE
B1	Issued for Review	12/09/2023	AJO	OTO	APE
C1	Issued for Client Review	19/09/2023	AJO	OTO	APE

SEALAND PROJECTS	SPL-PF-047

BISHOP HOUSE, 50 Carden Place, Aberdeen, AB10 1UP

Carbon Reduction Plan

Company name: Sealand Projects Ltd

1 Commitment to achieving Net Zero

Sealand Projects is committed to achieving Net Zero across scope 1, 2 and 3 by 2040. To formalise this commitment, Sealand joined the SMEClimateHub in 2021, an initiative founded by the UK Government to support SMEs to make Net Zero pledges and embark on their journey to Net Zero.

1.1 Net Zero Definition

It is widely accepted that for a business or organisation to meet Net Zero, actual emissions must be reduced by around 80-90% from baseline figures, it is then appropriate to offset any residual emission through a certified offsetting project.

1.2 Target Setting

To establish a pathway to Net Zero Sealand Projects has defined targets for reduction and an implementation timeline across scopes 1, 2 and 3 sources. The targets that have been set are achievable and sustainable for the business, recognising there will be short, medium, and long-term goals.

Sealand have an ambition to become an exemplar business for sustainability and therefore are committed to investing the necessary resources to implement carbon reduction initiatives.

2 2022-23 Emissions Footprint

Table 2-1 2022-23 Sealand Projects Emissions Overview

Reporting Period: September 2022- August 2023	
Total Emissions:	31.1 tCO_{2e}
Scope 1 • Gas • F-gas	9.7 t CO_{2e}
Scope 2 • Purchased Electricity	1.2 t CO_{2e}
Scope 3 • Employee Commute • Business Travel • Work from Home • Water • Waste	20.2 t CO_{2e}
Equivalent to UK cars on the road annually	14.8 Cars
Carbon Intensity Ratio (based on Full-time staff numbers)	1.1 t per FTE

2.1 Emission Breakdown

It is important to keep in mind the emission weighting of each source when developing a Carbon Reduction Plan, as ultimately emission sources carrying the most weight should be given precedence. The following table highlights Sealand's emissions most carbon intensive sources.

Table 2-2 Emission Source Percentage Weighting

Emission Source	Scope	Percentage of overall emissions	Percentage of emissions within scope 1	Percentage of emissions within scope 2	Percentage of emissions within scope 3
Gas	Scope 1	1.3%	4.1%		
F-Gas	Scope 1	29.9%	95.9%		
Purchased electricity	Scope 2	3.9%		100%	
Employee Commute	Scope 3	31.5%			48.6%
Business Travel	Scope 3	14.8%			22.8%
Work from Home	Scope 3	18.0%			27.8%
Water	Scope 3	0.5%			0.3%
Waste	Scope 3	0.3%			0.4%

3 Emission Reduction Targets

Reduction measures are outlined within this plan, and it is projected Sealand can achieve Net Zero by 2040. This includes:

- Achieving an 86% emission reduction for all scopes by 2040 (shown below).
- An interim predicted achievement whilst on the journey towards Net Zero for all three emissions scopes, will be reaching Net Zero across scope 1 and 2 sources by 2035, this is projected to be accomplished through a 91.5% emission reduction from the baseline figure, leaving 1.27 t CO2e residual emissions to be offset.

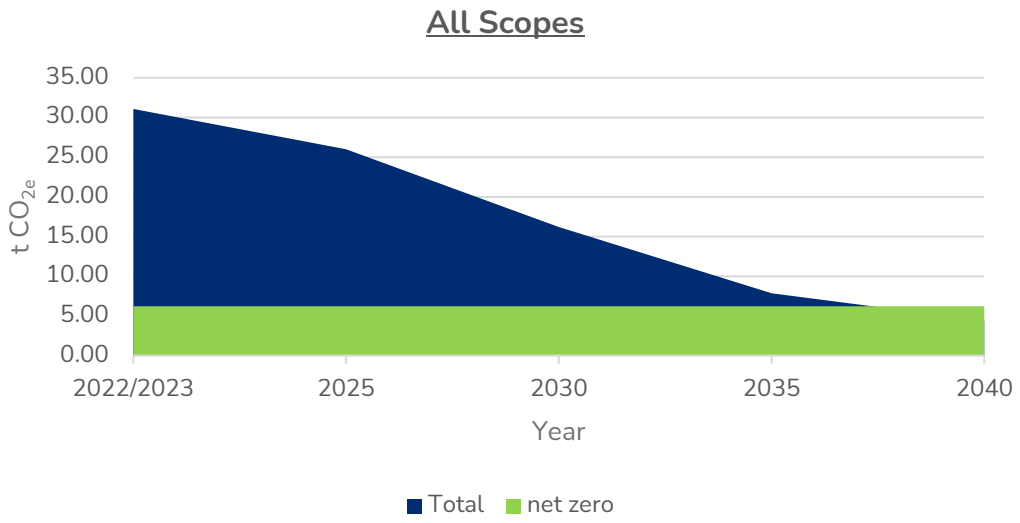


Figure 3-1 Combined Emission Scope Reduction Projection

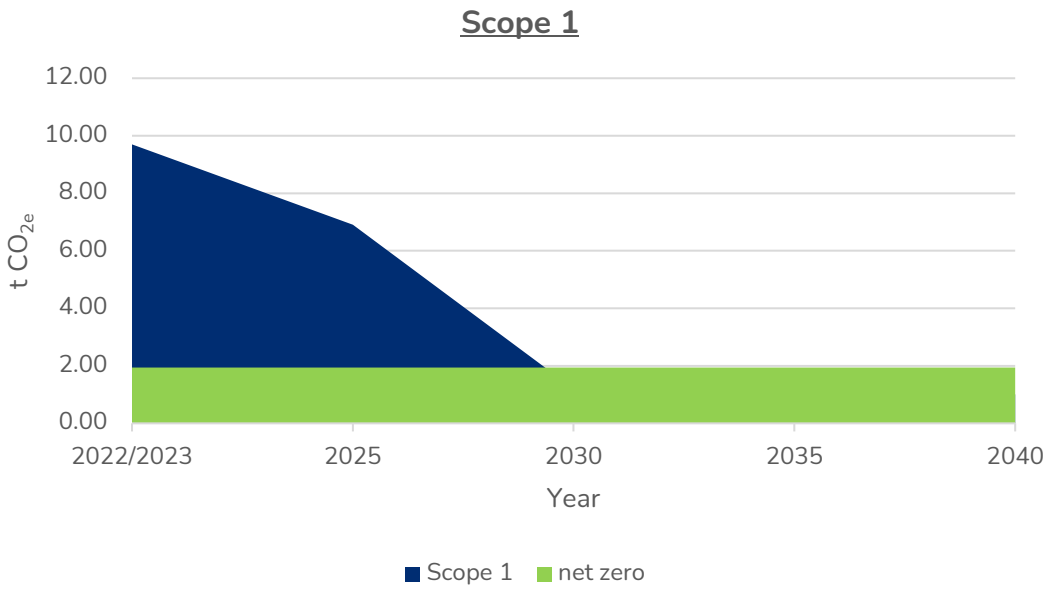


Figure 3-2 Emission Scope 1 Reduction Projection

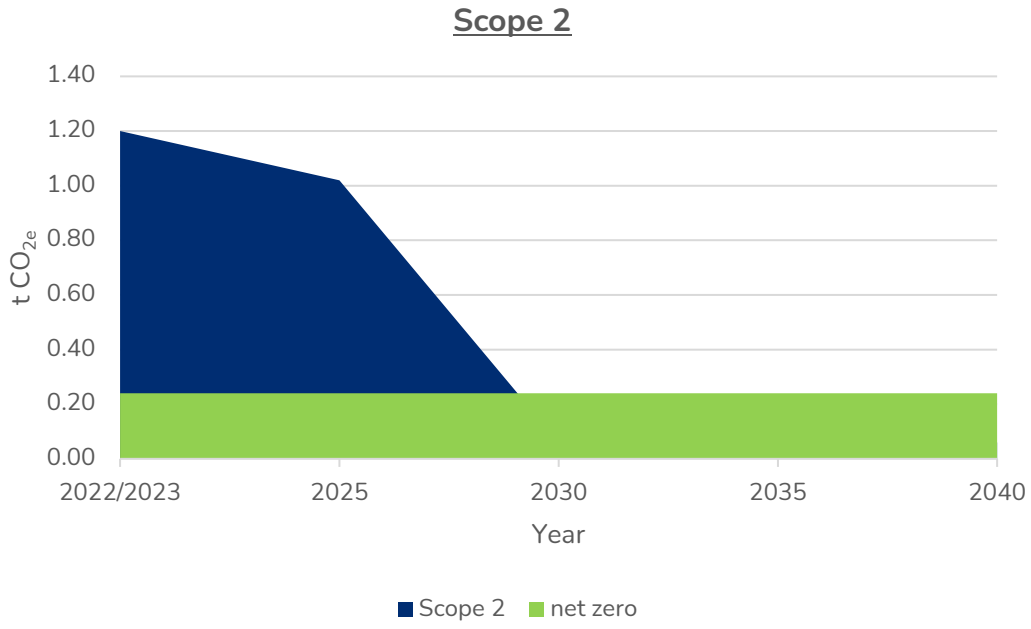


Figure 3-3 Emission Scope 2 Reduction Projection

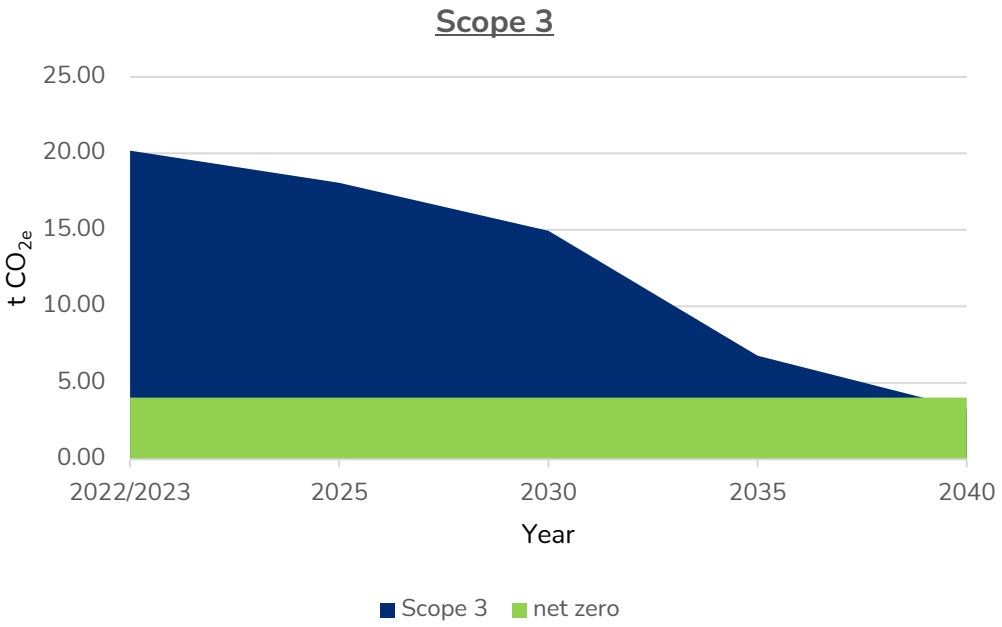


Figure 3-4 Emission Scope 3 Reduction Projection

4 Completed Carbon Reduction Projects

In recent years Sealand Projects have implemented reduction initiatives to support carbon emissions abatement. These include:

- (Scope 1, 2 and 3) Annual carbon emission reporting in place since 2021, with the 2019-20 financial year acting as Sealand's baseline figure.
- (Scope 1, 2 and 3) Since 2021, all annual reported emissions have been offset through VERRA and Gold Standard certified offsetting schemes.
- (Scope 1, 2 and 3) Sustainability themed employee engagement initiatives and awareness exercises have been carried out quarterly since 2021.
- (Scope 1, 2 and 3) Sealand SMEClimateHub joined in 2021, committing Sealand to Net Zero by 2040.
- (Scope 1, 2 and 3) The development of a Carbon Accounting Tool, SEAZERO, was finalised in 2022. This web application was developed with an external web developer to improve the ease and sophistication of annual carbon reporting.
- (Scope 2) Renewable electricity tariff in place for Aberdeen head office.
- (Scope 3) Carbon budget scheme implemented to reduce emissions occurring due to business travel.
- (Scope 3) Cycle to Work Scheme implemented.
- (Scope 3) Teracycle boxes implemented for soft plastic recycling.
- (Scope 3) Health Safety and Environmental (HSE) walk arounds carried out monthly to detect any water leaks.
- (Scope 3) Segregated bins in both offices for food and general recycling.
- (Scope 3) Recycling of electrical waste through donation to local communities

5 Upcoming Carbon Reduction Projects

A key reduction initiative which is noted throughout Section 5, is the formulation of an energy efficiency and low carbon building assessment. Sealand are a small company operating within two sub-let offices, occupying a minor proportion of floor space and therefore influence over implementation of any efficiency measures is limited. To target emission occurring as a result of the facilities in which Sealand personnel work on a day-to-day basis, a formalised energy efficiency and low carbon assessment will be created prior to the company moving office locations.

This assessment will be finalised before each of the leases for the Aberdeen and Glasgow offices ends and will allow Sealand to have informed, clear, and complete picture of the carbon performance of prospective new office locations. Currently, any emission reductions in relation to property management is restricted. By selecting office locations which have already implemented energy efficiency measures and have made low carbon choices in relation to property management, Sealand's overall emissions concerning facilities will reduce.

5.1 Scope 1

To achieve a 90% reduction within scope 1 by 2040 the following reduction measures are planned. By following the reduction measures below and the scope 2 reduction measures noted in Section 5.2, it is projected that Sealand will be able to achieve a 92.5% reduction across both scopes 1 and 2 by 2035.

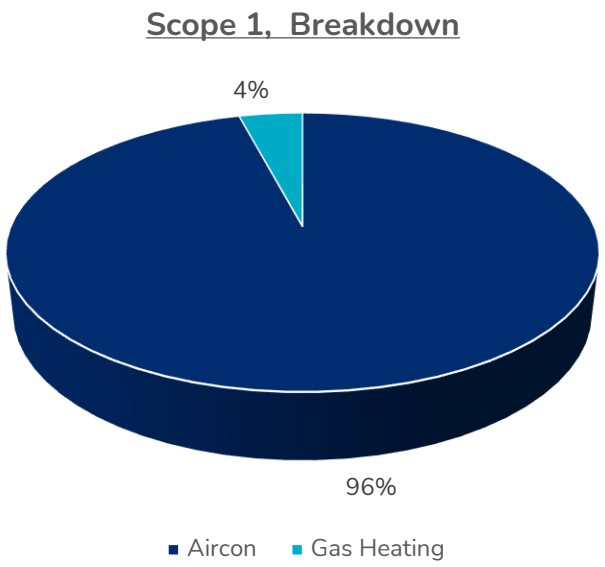


Figure 5 -1 Breakdown of Scope 1

5.1.1 Gas -4.1% of Scope 1 & 1.3% Overall Emissions

The following initiatives are planned:

2035- Change to a low carbon heating alternative; a formalised assessment to evaluate potential office's carbon performance is to be devised prior to the leases expiring on current offices.

5.1.2 F-gas - 95.9% of Scope 1 & 29.9% Overall of Emissions

The following initiatives are planned:

2025 – 30% reduction from leak prevention measures, the 2021-22 and 2022-23 reporting period experienced a significant amount of F-gas top-up due to inefficiencies within the aircon unit, leak prevention servicing is now carried out regularly,

2035 – 60% reduction from a switch to offices which use less carbon intensive f-gas than the current system uses at Bishop House. In recent years, more low carbon aircon units are coming onto the market, for example R32 is an increasingly popular system which has an emission factor or 675 compared to R410a the f-gas that is currently being used in Sealand's office, which has an emission factor of 2088.

5.1.3 Scope 1 Offsetting

Following these reduction measures Sealand will have 1.01 t CO2e remaining by 2035, this will incur a cost of £15.15 to offset.

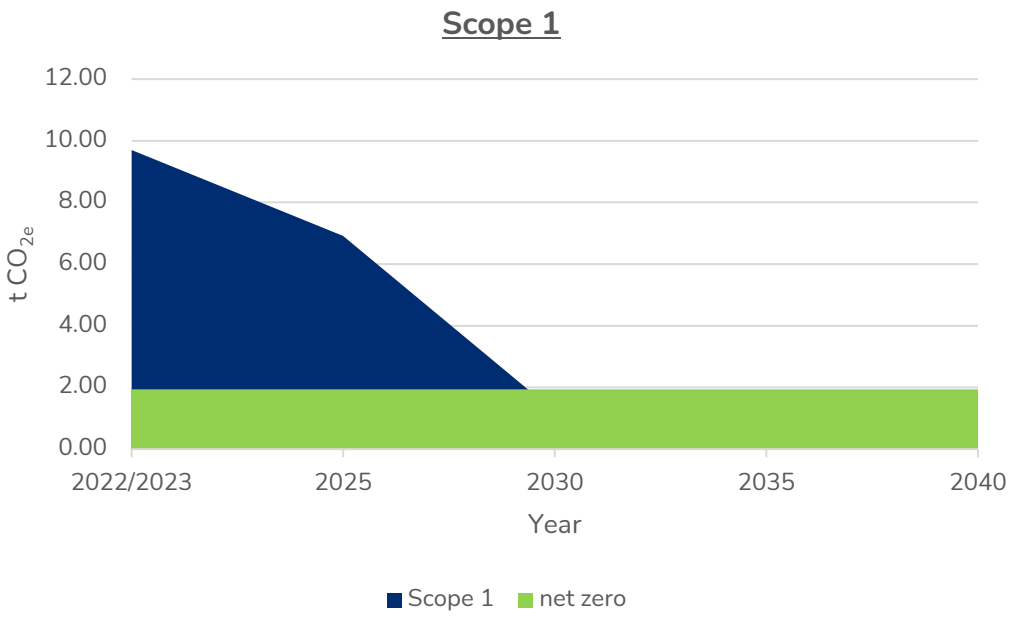


Figure 5 -2 Carbon reduction planning graph for scope 1

5.2 Scope 2

To achieve a 95% reduction target within scope 2 the following reduction measures are planned. It is proposed the following measures can achieve 95% reduction 2028. As noted within Section 5.1, combined with scope 1 reduction measured, it is projected that Sealand could reach a 92.5% reduction across scope 1 and 2 sources by 2035.

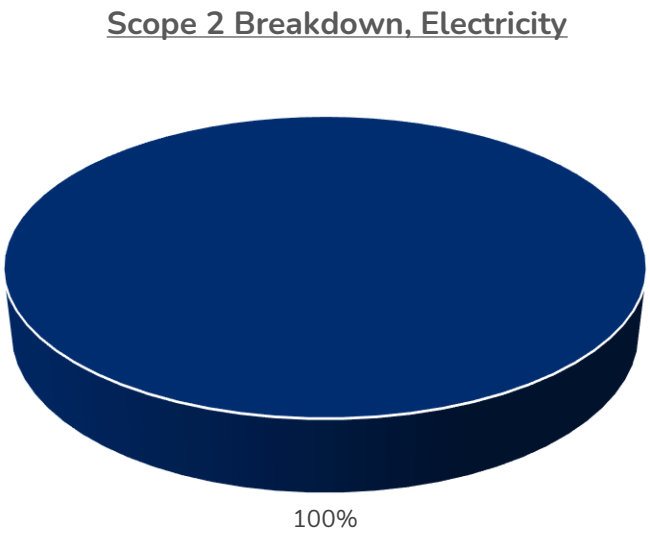


Figure 5 -3 Breakdown of Scope 2

5.2.1 Electricity - *100% of Scope 2, 3.9% of Overall Emissions*

2030 – 80% reduction to be achieved when the Glasgow office switches to a renewable tariff, this could be achieved by moving offices to a location where a renewable tariff is already in place or engaging with current office landlords to facilitate a transition.

5.2.2 Offsetting

After the transition to all renewable tariffs across both offices, there would be very minimal residual emissions to be offset for scope 2, this figure would be dependent on the emission factor of the procured energy contracts.

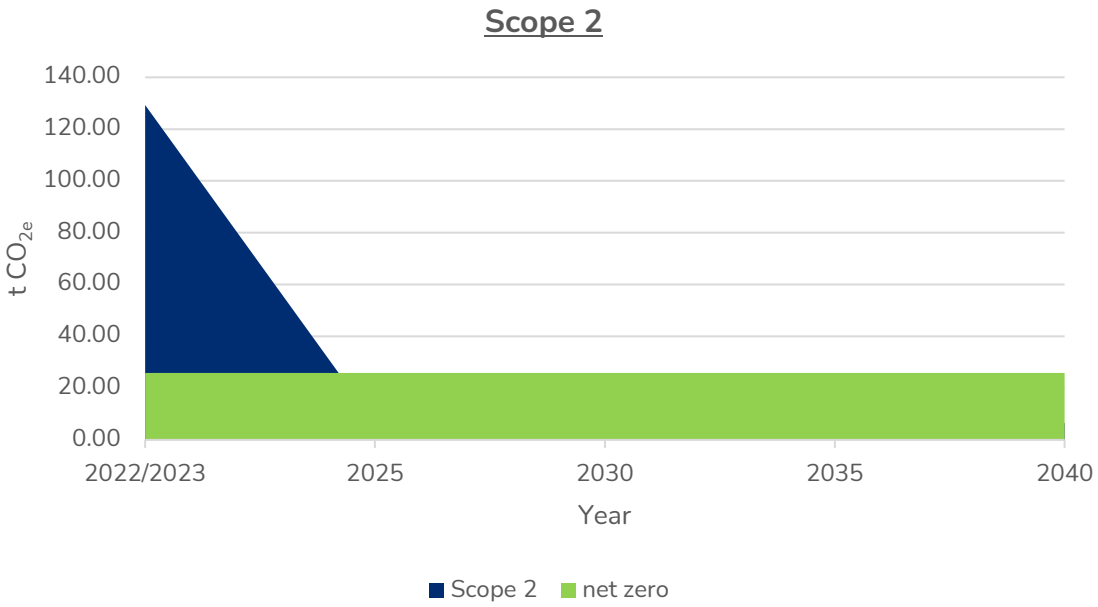


Figure 5 -4 Carbon reduction planning graph for scope 2

5.3 Scope 3

To achieve a 84% reduction target in scope 3 by 2040, the following emissions sources will be targeted with the subsequent reduction measures.

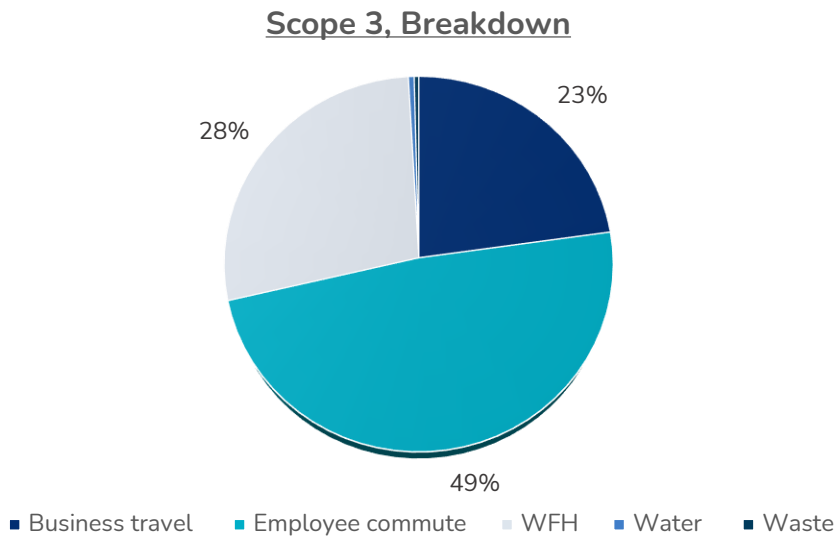


Figure 5 -5 Breakdown of Scope 3

5.3.1 Employee Commute- *48.6% of scope, 31.5% of Overall Emissions*

2035 – 15% reduction from the uptake of Cycle to Work Scheme (joined 2021) and Electric Salary Schemes (joined 2023) employee benefits. Take up will be aided by offering shower facilities in both offices and EV charging infrastructure in office car parks. As part of Sealand's low carbon building assessment when considering changing office locations, criteria will include looking at the public travel routes of potential office locations and how many EV charging points are offered to Sealand within the car park.

2040 – 80% reduction as Government pressures grow for the population to transition to all electric vehicles, this push will be strengthened by the ban of new diesel and petrol vehicles in 2030, and an increase in EV charging infrastructure in the UK.

5.3.2 Business Travel - *22.8% of scope 3 emissions, 14.8% of overall emissions*

2025 – 45% reduction from carbon travel budget, utilising teams over face-to-face meetings where possible.

2035- 60% reduction from carbon travel budget, utilising teams over face-to-face meetings where possible.

2040- 30% reduction from airlines transitioning to sustainable aviation fuels, as the use of low carbon fuels increase, the emission factor for flights will decrease in intensity.

5.3.3 Work from Home- *(27.8% of scope 3 emissions, 18% of overall emissions)*

2040- 60% reduction as the UK transitions to a cleaner energy mix and availability of domestic energy efficiency schemes grow, the emission factor for homeworking will dramatically decrease. It should be noted that in general there are limited reduction measures that can be put in place to target homeworking emissions, apart from behavioural awareness training.

5.3.4 Water - *(0.5% of scope 3 emissions, 0.3% of overall emissions)*

2025- 15% reduction from prevention of excessive loss of water through monthly HSE walkaround, which check each tap Sealand has use of is not leaking.

5.3.5 Waste - *(0.4% of scope 3 emissions, 0.3% of overall emissions)*

At present Sealand has implemented segregated bins within both offices, with the addition of Terracycle boxes which allow staff to recycle soft plastics. Electrical equipment is currently recycled via donation to local communities.

5.3.6 Offsetting

After all reduction measures there would be 3.29 t CO2e remaining emissions with a cost of £49 to offset in 2040.

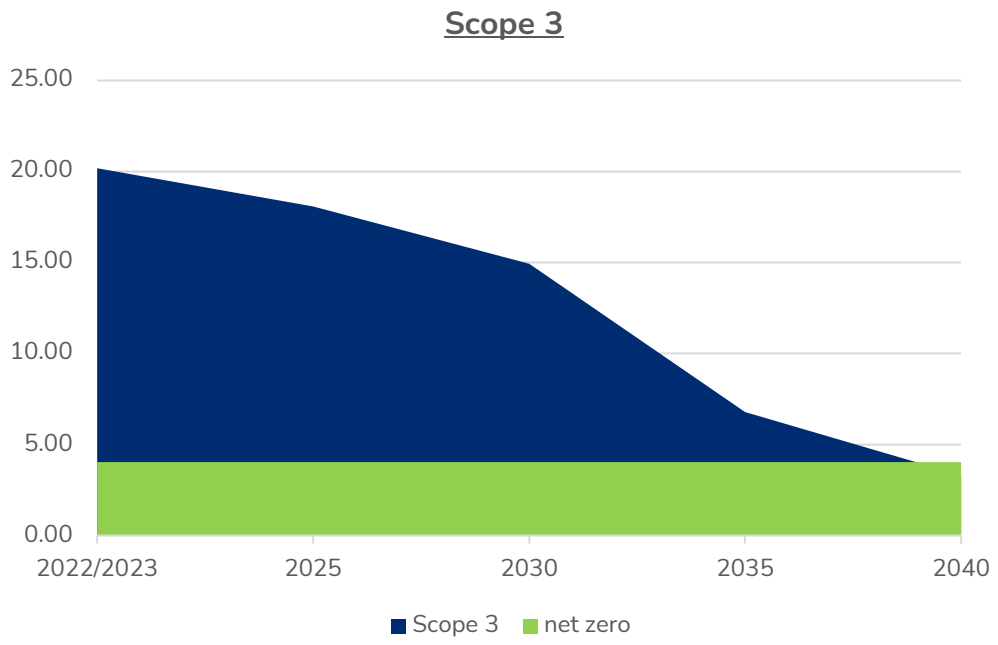


Figure 5 -7 Carbon reduction planning graph for scope 3

7 Declaration and Sign Off

This Carbon Reduction Plan has been completed in accordance with PPN 06/21 and associated guidance and reporting standards for Carbon Reduction Plans.

Emissions have been reported and recorded in accordance with the publishing reporting standard for Carbon Reduction Plans, the ISO 14064 standard GHG Reporting Protocol corporate standard and uses the appropriate Government emission conversion factors for greenhouse gas company reporting.

Scope 1 and scope 2 emissions have reported in accordance with the SECR requirements, and the required subset of scope 3 emissions have been reported in accordance with the published ISO 14064-3 standard & GHG protocol guidelines.

This Carbon Reduction Plan has been reviewed and signed off by the board of directors (or equivalent management body).

Signed on behalf of Sealand Projects.gt

Name.....

Date.....

{Guidance note: Your Carbon Reduction Plan should clearly state that board of directors (or equivalent management body) approval has been given with the date of approval. Where the organisation is a limited liability partnership (LLP), your Carbon Reduction Plan should be approved by the members. Your Carbon Reduction Plan should clearly state that members' approval has been given with the date of approval. Your Carbon Reduction Plan must be signed off by a director (or equivalent) or designated member (for LLPs). Include their name, job title and the date. You do not need to include a physical signature, but you should still clearly state that it has been signed}