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DeltaSimons

Procurement Policy Note 06/21 Report 2023

Presented to: Code Institute

Issued: September 2024

Lucion Delta-Simons Project No: 118814.639621

Protecting people and planet

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Report Details

Client	Code Institute
Report Title	Procurement Policy Note 06/21 Report
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Report No.	118814.639621
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Quality Assurance

Issue No.	Status	Issue Date	Comments	Author	Technical Review	Authorised
01	Final	04/09/2024		Oluwafemi O	S.Long	
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About Us

Lucion Delta-Simons is part of Lucion, a technology-led environmental services company dedicated to protecting people and the planet. With expert advice, guidance, and a comprehensive array of services, we support you at every stage of your asset lifecycle, helping you mitigate regulatory impact, improve business practices, and ensure safety and environmental protection.

As part of Lucion's group of companies, we can support you with a broader range of holistic services. Through our pool of multidisciplinary experts, we help you navigate complex regulatory frameworks, saving you time and money.

Being part of your sustainable supply chain is a key goal for our team. As a member of the UN Global Compact and a commitment to sustainability, we are the partner of choice for businesses looking to make informed decisions and mitigate risks across your portfolio.

Lucion is carbon neutral. We annually measure and report our Scope 1, Scope 2 and specified Scope 3 carbon emissions, and offset 100% of residual emissions through verified carbon credits, supporting carbon reduction and prevention projects overseas. We are taking steps to reduce our carbon emissions and have committed to setting and achieving near-term and Net Zero Science-Based carbon reduction targets in line with the goals of the Paris Agreement to limit global warming to 1.5°C above pre-industrial levels. Lucion is a signatory of Pledge to Net Zero and Members of the United Nations Global Compact.

If you would like support in understanding your carbon emissions, or those of your supply chain, please get in touch with your Lucion contact above who will be happy to help.

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Appendices

Appendix A – Limitations
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1.0 Introduction

1.1 Appointment

Lucion Delta-Simons Ltd ("Lucion Delta-Simons") was instructed by Code Institute (the "Client") to undertake an assessment of greenhouse gas (GHG) emissions as a result of its business operations during the 2023 financial year (1st January 2023 – 31st December 2023) in line with the Procurement Policy Note 06/21.

The report has been undertaken in line with the Procurement Policy Note 06/21 (PPN) Framework and the Companies Act 2006 (Strategic and Directors' Reports) Regulations 2013 as well as PAS2050:2001 Specification for the assessment of the life cycle greenhouse gas emissions of goods and services' and the 'GHG Protocol'. Carbon conversion factors are taken from '2023 UK Government GHG Conversion Factors for Company Reporting'.

1.2 PN 06/21 Qualification Status

An organisation will qualify for PPN compliance when procuring a public sector contract with an anticipated contract value above £5 million per annum (excluding VAT) which are subject to the Public Contracts Regulations 2015.

1.3 Context & Purpose

Lucion Delta-Simons has been requested by Code Institute to undertake a carbon footprint assessment of their annual business operations in line with the PPN06/21 framework. It is understood that the Client through the carbon assessment wishes to develop a carbon reduction plan to aid a smooth drive towards NetZero.

The Client is a is a global educational technology company located in Dublin, Ireland, with the delivery of software development services, including those necessary for the AI era. Code Institute deliver online, practical skills in full-stack software development, web application development, e-commerce, predictive analytics, and advanced front end to help learners change jobs. These skills incorporate key components for success in an AI-driven future.

The carbon footprint within the scope of PPN06/21 shall assess the impact from utility consumption, waste, business travel and commuting for the Client staff and upstream transportation and distribution.

The Client has been reporting their carbon footprint in line with PPN06/21 since the 2021 financial reporting year. Code Institute may wish to expand the carbon assessment boundaries beyond the scope of PPN 06/21 going forward, so that a broader variety of business activities and operations can be included within future carbon footprints.

1.4 Scope of Works

The scope of works undertaken for this assessment were:

Task 1 - Corporate Carbon Footprint (GHG) Assessment & Net Zero Carbon Reduction Plan

- The assessment shall be completed in accordance with the Greenhouse Gas (GHG) Protocol Corporate Accounting and Reporting Standard, to include Scope 1, Scope 2 and a defined and agreed sub-set of Scope 3 emissions in line with previous reporting and PPN06/21. Additional scope 3 boundaries can be discussed and confirmed with the Client; and
- The project shall be approached as a single assessment for operations for the Ireland office in line with the business operations as outlined in Item 14 of the PPN 06/21[1].

[1] PPN 06/21: Frequently asked questions [online]

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Task 2 – Updated Net Zero Carbon Reduction Plan

- The production of a summary Net-Zero Strategy report meeting the requirements of PPN06/21; and
- The works shall include the development of a carbon reduction target aligned with the requirements of a Science Based Target, so as to support attainment of a verified SBTi commitment target in future if required, and the development of a high-level outline carbon reduction plan*.

Notes:

* To obtain a formal, verified SBT via SBTi it will be required to extend the scope of the assessment to include at least 67% of Scope 3 emissions in any near-term target, and at least 90% of Scope 3 emissions in any long-term target.

While this report includes assessment of Client's emissions in accordance with the legal requirements of PPN 06/21, this does not in itself represent compliance with the requirements of the Regulations. The Client shall complete their own PPN 06/21 compliance reporting based on the emissions calculations included within this report and upload their statement to the relevant company webpages by any deadline imposed upon them.

The standard limitations associated with this assessment are presented in Appendix A and the PPN 06/21 Compliance Statement is presented as Appendix B.

1.5 Methodology and Assurance

This report has been produced in general accordance with "ISO 14067:2013: Greenhouse Gases – Carbon Footprint of Products" and "PAS 2050 – Specification for the assessment of the life cycle greenhouse gas emissions of goods and services".

The carbon conversion factors have been taken from the 2023 Government Greenhouse Gas (GHG) Conversion Factors for Company Reporting, produced by the Department for Business, Energy & Industrial Strategy.

This assessment measures, where possible, the carbon dioxide equivalent (CO_2e) emissions associated with business activities. Carbon dioxide equivalent includes the six main GHG covered by the Kyoto Protocol: carbon dioxide (CO_2), methane (CH_4), hydrofluorocarbons (HFCs), nitrous oxide (N_2O), perfluorocarbons (PFCs) and sulphur hexafluoride (SF_6). It is considered important to report these GHGs as the global warming potential (GWP) of certain GHGs may be many times greater than that of CO_2.

1.6 Limitations

The majority of data has been provided for the full reporting periods. Where data has not been available, figures have been extrapolated using either average intensity ratios or previously reported data.

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2.0 Report Boundaries

2.1 Corporate Structure

Code Institute only runs from the Head Office in Ireland, and there are no Joint Ventures (JVs) or associates within the organisation, it is considered that there is limited difference between financial and operational control boundaries. Therefore, this carbon footprint assessment has been based on the environmental impacts which Code Institute has significant operational control or influence over.

2.2 Reporting Period

The reporting period for this PPN 06/21 GHG Assessment is in line with the Client's 2023 financial year:

- 1st January 2023 – 31st December 2023.

2.3 Organisational Boundaries

GHG emissions have been assessed using the 'operational control' approach, meaning that the Client reports on emissions resulting from its operations, within its direct or indirect operational control.

2.4 Data Completeness

The Client has provided data to calculate its annual emissions. Electricity, transport, waste data during 2023 has been collected, as well as a wide range of other emissions sources.

Whilst good data coverage has been provided, it is the intention of the Client to continually improve its data capture processes in the future.

2.5 Quantification Methodology

This assessment is produced in line with UK Government Environmental Reporting Guidelines: Including Procurement Policy Note 06/21 in conjunction with UK Government GHG Conversion Factors for Company Reporting.

The carbon footprint assessment was carried out in general accordance with 'PAS2050:2001 Specification for the assessment of the life cycle greenhouse gas emissions of goods and services' and the 'GHG Protocol'. Carbon conversion factors are taken from 'UK Government GHG Conversion Factors for Company Reporting.

This assessment has been self-certified to be carried out in general accordance with the GHG Protocol and ISO14064-1:2006 Greenhouse Gases – Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals. Carbon conversion factors have been taken from 'DBEIS/DEFRA - UK Government Conversion Factors for Company Reporting 2023' as the reporting periods fall within the 2023 calendar year. This is in line with environmental reporting guidance.

2.6 Site Information

Code Institute operates from a single office space during the reporting period, located at Blackrock Business Park, Carysfort Avenue, Blackrock, Dublin, Ireland. This premises has an incoming electricity supply only. There is no natural gas supply on-site and no refrigerant top-ups occurred during 2023.

2.7 Data Verification

A sample of utility consumption tracking sheet have been provided for utility consumption. For all other data sources, evidence has not been provided. In such cases, data verification cannot be conducted. Lucion Delta-Simons has taken the data provided in good faith. Verification of the data used in this report is the responsibility of Code Institute.

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3.0 Operational Scopes

3.1 Definitions

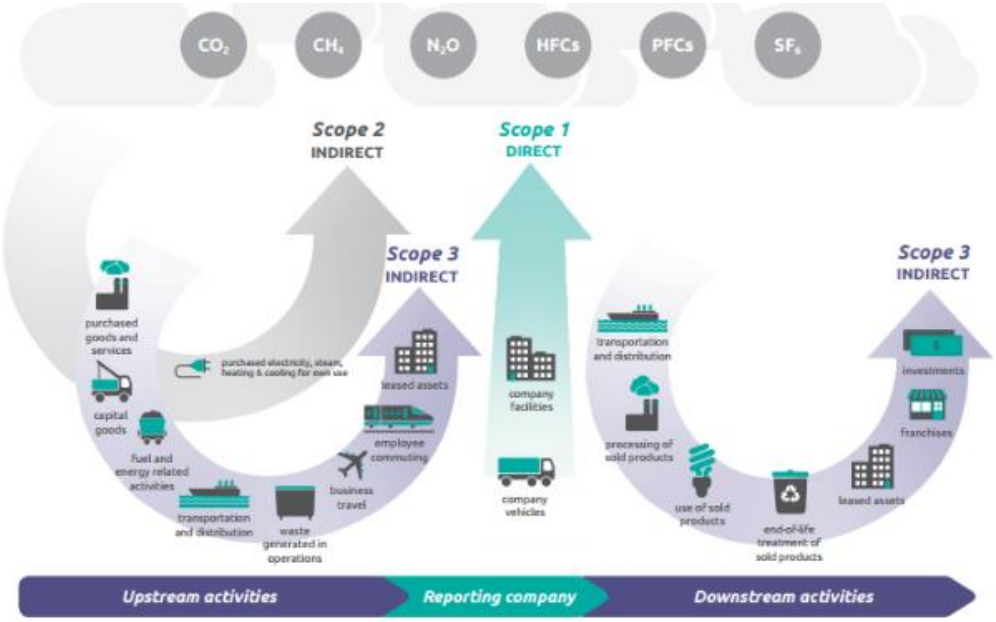
GHG Emissions are categorised into Scopes:

Scope 1 – Direct emissions resulting from the primary combustion of fuels in organisation-controlled premises, vehicles and plant. Furthermore, fugitive emissions (gases which are not combusted but are released into the atmosphere) are also included. It is mandatory to report Scope 1 emissions.

Scope 2 – Indirect emissions resulting from the consumption of purchased electricity that has been generated off-site and supplied by the national grid. It is also mandatory to report Scope 2 emissions.

Scope 3 – Indirect emissions associated with the consequences of the activities of the organisation but controlled by another entity outside of the corporate structure. Scope 3 emissions are voluntarily reported by organisations who wish to assess the wider impact of their business operations.

Figure 1: GHG Protocol – Carbon Scopes



3.2 Inclusions

GHG Emissions have been calculated for Scopes 2 & 3, in line with UK Environmental Reporting Guidance within the scope of PPN 06/21 and include the following sources:

Scope 1 – Direct Combustible Fuels

- **Fleet Vehicles:** Code Institute do not operate any company vehicle and as such no emission is traceable to scope 1 transport;
- **Gas:** The Client site is not connected to any natural gas or have on-site vehicle that consume any combustible fuel like propane; and
- **Refrigerant:** Refrigerants were consumed by air conditioning systems; however, no refrigerant top-ups were undertaken during 2023.

Scope 2 – Indirect Combustible Fuels

- **Purchased Electricity:** Emissions for grid electricity have been calculated for 2023 reporting year.

Scope 3 – Indirect Emissions

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- **Category 3.3 - Fuel and Energy related activities**
  - **Electricity T&D:** This category has been reported as part of the emission involved in the loss by the reporting company during the transportation of the consumed electricity;
  - **WTT Electricity and T&D:** This category has been reported as part of the emission involved in the extraction, production, and transportation of fuels consumed in the generation of electricity, steam, heating, and cooling that is consumed by the Client;
  - **Trains:** The fuel lifecycle emission involved in train travels;
  - **Flights:** The fuel lifecycle emission involved in air travels;
  - **Taxis:** The fuel lifecycle emission involved in all taxi trips;
  - **Employee Commuting:** The fuel lifecycle emission involved in employee commuting;
  - **Personal Vehicles:** The fuel lifecycle emission involved in personal travels; and
  - **Upstream Transportation and Distribution:** The fuel lifecycle emission involved in upstream transportation and distribution.
- **Category 3.4 Upstream Transportation and Distribution**
  - **Laptop:** As a result of the Client's operations, the Client took the delivery of laptops in the reporting year to complement the operational state and demand of the organisation; and
  - **Snacks Delivery:** The Client has reported a bulk delivery of snacks and beverages to the office from a supplier on weekly basis. The emission from the delivery using the associated weight has been factored into the emission calculation.
- **Category 3.5 Waste Generated in Operations**
  - **Waste & Recycling:** As a result of the Client's operations, the Client generated a range of recyclable and commercial waste. Data on the type and weight of waste has been estimated using 2022 consumption.
- **Category 3.6 Business Travel**
  - **Trains:** The Client conducts regular train travel for business purposes. Origins, destinations and the distances travelled have been provided for all journeys;
  - **Air Travel:** The Client conducts air travel for business purposes. Origins, destinations and the distances travelled have been provided for all journeys;
  - **Taxis:** The Client purchases taxis for employees both directly and reimburses employees for taxis they have purchases for business use. Spend per taxi journey has been provided by the client. Distance travelled have been provided alongside the cost associated for every taxi journey;
  - **Hotels:** Employees are occasionally required to stay in hotels when travelling for business purposes. Location of hotel and length of stay has been provided by the Client for all bookings. For the 2023 reporting year, an activity-based methodology, number of nights stayed, has been utilised; and
  - **Personal Vehicles:** The Client reimburses employees for business mileage conducted in personal vehicles. Mileage claims has been recorded and data provided.
- **Category 3.7 Employee Commuting**
  - **Employee Commuting:** Emissions for all internal staff for commute between home and Client business premises have been included under this category. No consideration has been given to remote working.

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3.3 Exclusions

Scope 3

- **Home Working:** Whilst provisions for home working have been implemented, the associated emissions are not considered to be under the control of the Client and are impractical to measure.
- **Other Categories:** All other Scope 3 categories are outside the scope of PPN 06/21 and have not been reported.
- **Category 3.9: Downstream transportation and distribution:** The Client is an IT service provider and do not have supply or distribution any commodities that would require transportation. Therefore, since there is no emission from this source as, this was excluded from the emission reported.

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4.0 Results

4.1 Summary

GHG emissions associated with Code Institute operations during the 2023 Reporting Year (RY) have been calculated. Table 1 summarises total operational emissions by Scope.

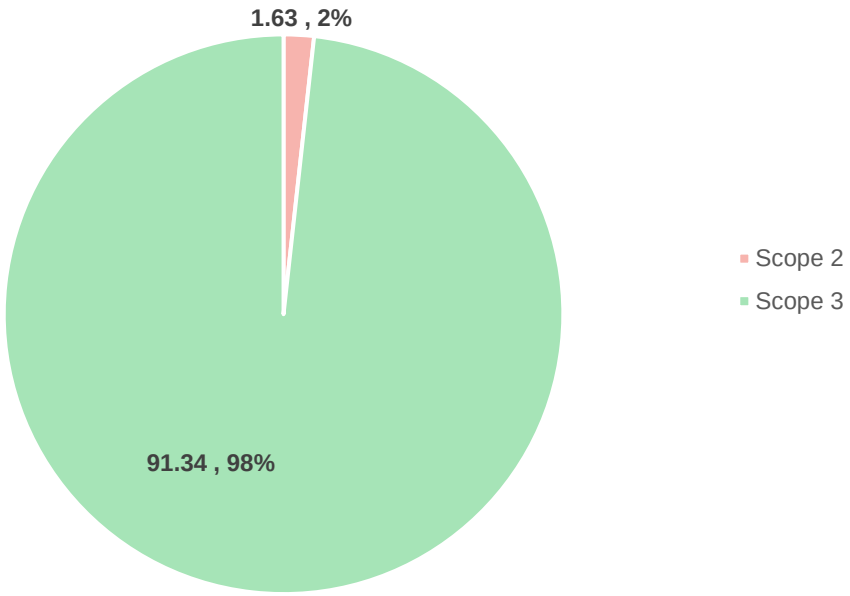
Table 1: Summary GHG Emissions Results FY2023

Scopes	2022	2023	% Var from Baseline (2021)
	tCO_2e		
Scope 1	-	-	-
Scope 2	1.26	1.63	- 276.49%
Scope 3	31.47	91.34	8,397.61%
Total	**32.73**	**92.96**	**8,221.12%**

Table 1 shows that total emissions for the period 1st January 2023 – 31st December 2023 totalling 92.96 tCO_2e. Figure 2, below, shows the split of emissions between each Scope. Scope 2 emissions (imported electricity) accounts for 1.75% of total carbon emissions. The remaining 98.25% is attributable to indirect Scope 3 emissions from category 3: fuel and energy related activities (electricity, fuel used for transportation) category 4: waste generated in operations, category 6: business travel (rail, taxi's, flights, hotel stays, and personal vehicle use), and category 7: employee commuting.

For the reporting year, no Scope 1 emission was reported for the Client.

Figure 2: Code Institute Carbon Emissions by Scope (2023)



4.2 GHG Emissions by Source and Scope

Table 2 below illustrates breakdown of the total emissions by Scope. These are then sub-divided to show the contribution of each source. The table shows that the largest proportion of emissions are produced by Scope 3 sources.

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GHG emissions associated with each source during the 2023 reporting period are presented in Table 2 below.

The results illustrate how employee commuting alone accounts for 55.60% of total emissions, fuel and energy related activities (20%), air travel accounts for (15.70%), business travel (4.18%), upstream transportation and distribution accounts for (3.74%) electricity consumption (1.75%). All other emission sources contribute less than 1% of emissions each. Table 2 provides a summarised breakdown of relative consumption and equivalent tCO_2 emissions.

Figure 3: Code Institute Carbon Emissions by Scope & Category (2023)

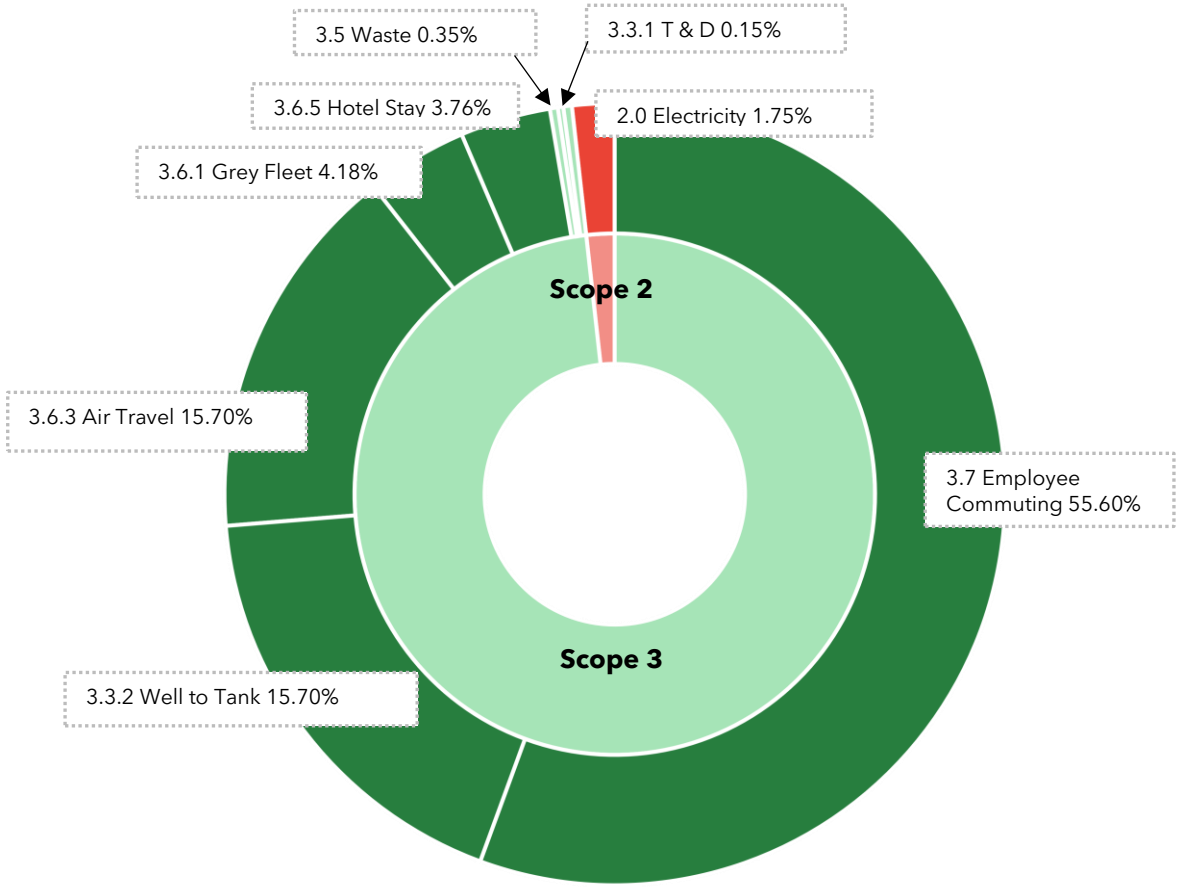

Table 2: Code Institute Carbon Emissions by Scope & Category (2023)

	Energy Source		2022			2023			% Var from Baseline (2021)
			Units	tCO_2e	%	Units	tCO_2e	%	
Scope 1	Refrigerants	tonnes	-	0.00	0.00%	-	0.00	0.00%	0.00%
Scope 2	Electricity	kwh	4,562.02	1.26	3.84%	7,848.05	1.63	1.75%	-52.06%
Scope 3	Personal Vehicles	miles	10,928.79	3.00	9.17%	14,503.11	3.89	4.18%	463.69%
	Employee Commuting	miles	67,501.79	18.54	56.64%	192,729.90	51.69	55.60%	2,053.59%
	Rental Vehicles	miles	-	0.00	0.00%	-	0.00	0.00%	-100.00%
	Taxis	miles	640.15	0.21	0.66%	366.06	0.09	0.09%	-27.04%
	Rail Travel	miles	122.92	0.01	0.04%	1,522.36	0.09	0.09%	116.25%

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	Flights	miles	7,407.37	2.81	8.57%	48,775.76	14.59	15.70%	4,322.41%
	Hotels	nights	20.00	0.22	0.67%	141.00	3.48	3.76%	1,141.68%
	Upstream Distribution	tonne. km	3.49	<0.01	0.00%	368.04	0.21	3.74%	2016.74%
	General Waste	kg	600.00	0.27	0.82%	600.00	0.31	0.35%	15.63%
	Recycling	kg	415.00	0.01		415.00	0.01		-11.68%
	T&D	kwh	4,562.02	0.12	0.40%	7848.05	0.14	0.15%	-58.65%
	Well-to-Tank	various	-	6.28	19.20%	-	16.84	18.12%	810.41%
	Total		**-**	**32.73**	**100%**	**-**	**92.96**	**100%**	**853.45%**

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5.0 Scope 2 Results

5.1 Electricity

Scope 2 accounts for 1.75% of total GHG emissions for Code Institute for the reporting year. Best practice requires organisations to report location and market-based emissions, however, Code Institute has not reported buying from green source or any on-site generation. Therefore, location-based and market-based emissions produce the same amount of tCO_2e.

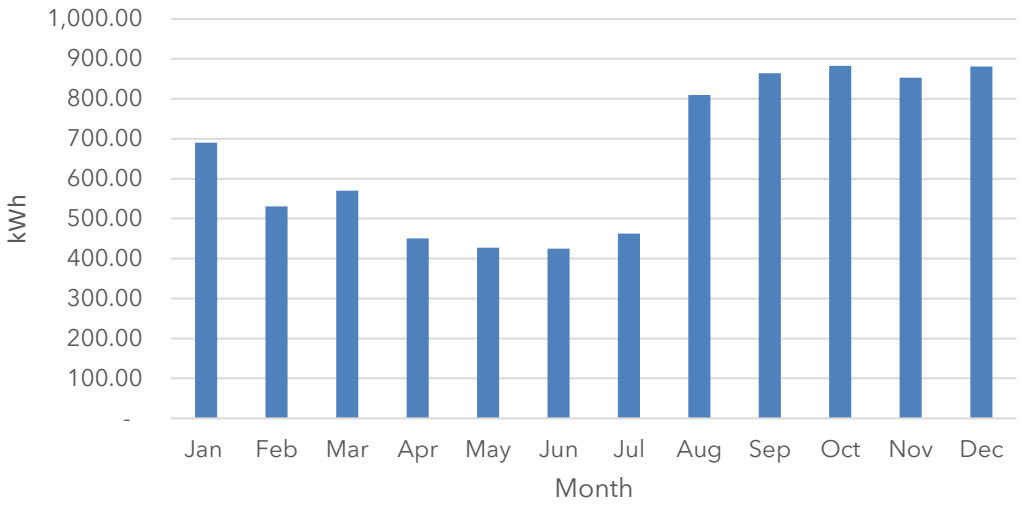
The UK conversion factors are taken from UK Government GHG Conversion Factors for Company Reporting.

Table 3: Building Electricity Consumption & tCO_2e by Method (FY23)

Site	2022		2023		% Var from Baseline (2021)
	kWh	tCO_2e	kWh	tCO_2e	
Ireland	4,562.00	1.63	7,848.05	1.63	- 52.06%
Total	**4,562.00**	**1.63**	**7,848.05**	**1.63**	**- 52.06%**

Figure 4 below, illustrates the distribution of the Client's electricity consumption over the reporting period, which was provided on a monthly basis. Where figures were missing or not aligned with the reporting month, extrapolations were made.

Figure 4: Monthly kWh Building Electricity Consumption (FY23)



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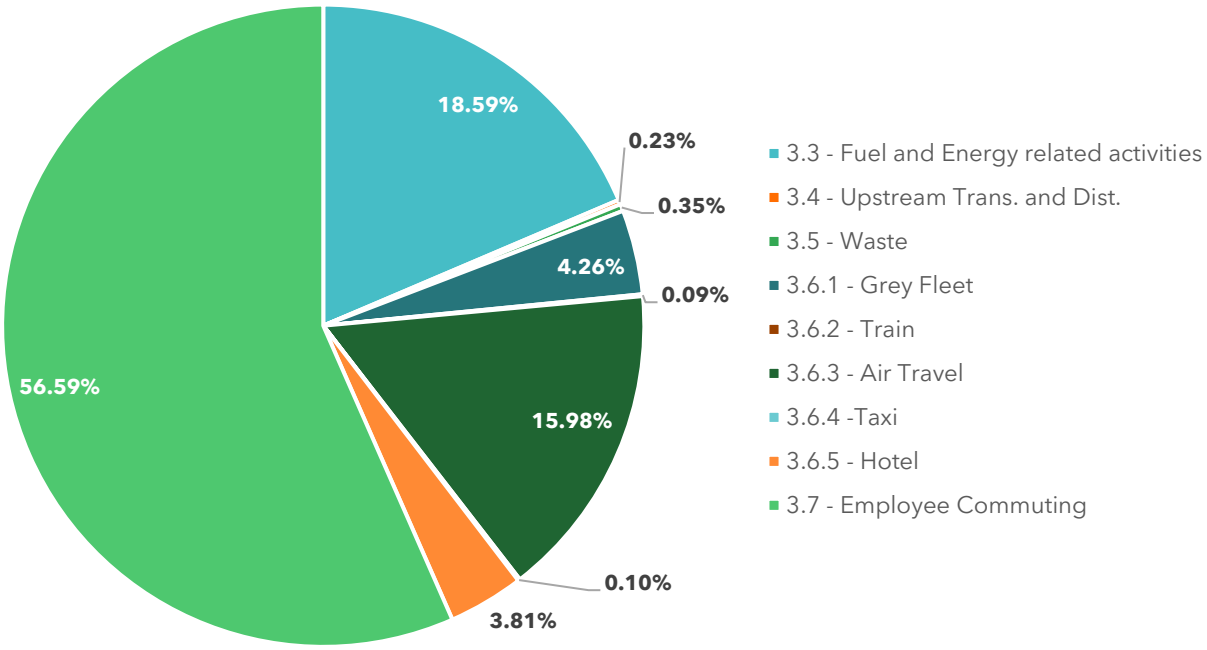
6.0 Scope 3 Results

Results demonstrate that Scope 3 accounts for 98.25% of total GHG emissions for Code Institute for the 2023 reporting year. A percentage breakdown of Scope 3 emissions is presented in Figure 5, employee commuting contributed (51.69%) the most to Scope 3 emissions followed by well-to-tank (18.44%), air travels (15.98%), personal vehicle use (4.26%), and hotel stays (3.81%). All other scope 3 categories contributed to less than 1% each to the Scope 3 emissions. A breakdown summary per Scope 3 category is detailed throughout section 7.0.

Figure 5: Scope 3 Emissions per Category (FY23)



6.1 Category 3 - Fuel & Energy Related Activities

The results in Table 5 shows emissions associated with all Well to Tank (WTT) activity for building energy and travel related activities for Code Institute, as well as transmission and distribution of purchased electricity. UK Government GHG Conversion Factors for Company Reporting for well to tank emissions have been applied.

Table 4: Emissions from Well-to-Tank & T&D Losses

Fuel & Energy Related Activities	2022	2023	% Var from Baseline (2021)
	tCO_2e		
Well to Tank - Electricity	0.23	0.39	-59.29%
Personal Vehicle Use	0.79	1.02	458.15%
Employee Commuting	4.90	13.54	2048.14%
Hired Vehicles	-	-	-100.00%
Flights	0.31	1.79	4886.18%
Taxi Travel	0.05	0.02	-22.77%
Rail Travel	0.00	0.02	152.73%

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Upstream Distribution	0.00	0.05	19420.83%
T&D - Electricity	0.34	0.14	52613.44%
Total	**58.03**	**16.98**	816.00%

6.2 Category 4 – Upstream Transportation and Distribution

The results summarise emissions associated with the upstream transportation and distribution of goods purchased by the Client which consisted of laptops and food supplies. The tonne.km and emissions factors associated with supplier deliveries to the Client was used to arrive at the emission. Freight conversion factors have been used from UK Government GHG Conversion Factors for Company Reporting.

Table 5: Upstream Transport & Distribution

Commodity	2022		2023		% Var from Baseline (2021)
	Tonne.km	tCO_2e	Tonne.km	tCO_2e	
Laptop	3.49	0.0004	261.84	0.15	15,920.74%
Snacks	-	-	106.20	0.06	-100.00%
Total	**3.49**	**0.0004**	**368.04**	**0.21**	22,418.48%

6.3 Category 5 - Waste Generated in Operations

Waste data used was estimated based on information provided in the 2021 assessment. The Client has reported that the volume of waste collected is similar to the quantity reported previously. Estimated waste quantity were categorised as both commercial waste and recycled materials only. Conversion factors have been used, from UK Government GHG Conversion Factors for Company Reporting for general, recycling, energy from waste and incineration waste.

Table 6: Emissions from Waste

Waste Type	Waste Disposal Method	2022		2023		% Var from Baseline (2021)
		Tonnes	tCO_2e	Tonnes	tCO_2e	
Refuse – Commercial Waste	Recycle	0.60	0.27	0.60	0.31	0.00%
Mixed recycling	Recover	0.42	0.01	0.42	0.01	0.00%
Total	**-**	**1.02**	**0.28**	**1.02**	**0.32**	**16.00%**

6.4 Category 6 – Business Travel

The results show the breakdown of all business travel emissions by transport type. Table 7 shows that the majority of emissions from business travel are produced by air travels (65.93%), followed by personal vehicles (17.57%), hotel stays (15.71%), taxi travel (0.40%) and rail travel (0.39%).

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Table 7: Emissions from Business Travel

Business Travel Mode	Unit	2022		2023			% Var from Baseline (2021)
		Value	tCO_2e	Value	tCO_2e	%	
Flights	km	11,921.00	2.81	78,497.00	14.59	65.93%	4,341.32%
Taxi Travel	km	640.00	0.21	589.12	0.09	0.40%	- 24.20%
Hotel stays	Nights	20.00	0.22	141.00	3.48	15.71%	1,164.25%
Rail Travel	km	343.76	0.01	2,450.00	0.09	0.39%	1,06.33%
Personal Vehicle Use	km	10,929.00	3.00	23,340.50	3.89	17.57%	460.06%
Total	**-**	**-**	**6.25**	**-**	**22.13**	**100%**	**1,420.73%**

6.5 Category 7 – Employee Commuting

The results show distance and emissions associated with employee commuting to Code Institute office within the reporting period. In total, the commuting survey is representative of 25 employees and the result was extrapolated to cover the total 75 employees.

UK Government GHG Conversion Factors for Company Reporting for each mode of transport have been applied.

Table 8: Emissions from Commuting

Transport Mode	2022		2023		% Var from Baseline (2021)
	km	tCO_2e	km	tCO_2e	
Average Car – Unknown	108,634.00	18.54	310,168.80	51.69	2,055.65%
Total	**108,634.00**	**18.54**	**310,168.80**	**51.69**	**2,055.65%**

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7.0 Carbon Intensities

Carbon intensity ratios have been established to assess the normalised carbon performance of operations, based on floor area, employee headcount and revenue. These metrics allow for the business to compare future performance when factoring in growth or changes in business operations on a like for like basis.

Floor Area

Carbon intensity has been measured against floor area, measured in $kgCO_2e$ per square meter (m^2). This calculation includes all scope 2 and 3 emissions associated with operations conducted within the Client's site.

No. Employees

Performance is also assessed using a carbon intensity ratio of tCO_2e per employee. Over the 2023 period, the Client had a total of 75 employees. This calculation includes all scope 2 and 3 emissions.

Revenue

Performance has been assessed using an intensity ratio of tCO_2e per €1,000,000 revenue. The Client provided a revenue figure of €12,213,127 for 2023. This calculation includes all emissions resulting from all scopes.

A summary of carbon intensity metrics, provided from previous reporting, have been provided from 2021 to 2023.

As demonstrated by Table 9, there has been a significant increase across all intensities used, an indication that the base 2021 (Covid period) is not an indication of the Business-as-Usual situation of the Client's emission.

Table 9: Carbon Intensity Ratios 2021 – 2023

Carbon Intensity Ratio Averages	2021	2022	2023	% Var from Baseline (2021)
Floor Area (tCO_2e per sq. ft)	<0.01	0.01	0.02	2,556.04%
Revenue (tCO_2e per £m)	1.39	3.84	7.61	446.97%
Employee (tCO_2e per number of employee)	0.14	0.48	1.24	777.82%

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8.0 Carbon Reduction Pathway

8.1 Summary

In December 2015, The United Nations Framework Convention of Climate Change (UNFCCC) reached a landmark agreement to tackle mankind's contribution toward climate change - known as the Paris Agreement. The aim was to limit a global temperature rise of below 2°C above pre-industrial levels and before the end of this century (2100). The Agreement also includes a commitment to make efforts to limit a global temperature rise to 1.5°C – this is the point at irreversible damage to the environment is predicted to occur. In order to achieve this, we must reduce our absolute carbon emissions by 45% before 2030, and by 80% prior to 2050. The Paris Agreement entered into force on 4th November 2016, with the United Kingdom one of the first nations to ratify the Agreement.

In line with the Paris Agreement, the United Kingdom in 2019 became the first major economy to pass legislation which commits to ending its contribution to global warming. The target to is achieve 'net-zero' greenhouse gas emissions by 2050. Net-zero means that the country will reduce its emissions so far as is practical. Any residual emissions will be balanced through the use of offset schemes, such as carbon capture and storage, or planting trees. It is expected that the UK government will implement secondary legislation and/or incentive schemes in the coming years in order to encourage businesses to meet these targets.

To complement the 2050 NetZero commitment of the UK government, the UK Government Commercial Function has developed a new commercial policy measure for all central government departments and arm's length bodies. This measure requires suppliers bidding for major government contracts to commit to achieving Net Zero by 2050 and publish a 'Carbon Reduction Plan

In this context, the following section provides a benchmark of the Client's current carbon emissions and sets out an indicative pathway that illustrates how decarbonisation may be achieved by 2030.

Similarly, in line with the observed increase in the total amount of tCO2e from the 2021 reported emissions – an indicative of Covid impacted operational scenario, and the total emissions for 2023, a business-as-usual scenario, the Client have agreed to reestablish their baseline using 2023 emission figures.

8.2 Implemented Carbon Reduction Initiatives

The Client reported that no carbon reduction initiative was implement. As such, it is recommended that the Client should take advantage of the opportunities identified within the recommendations.

8.3 Recommendations

8.3.1 Renewable Electricity Options

The first carbon reduction measure that the Client should consider would involve the implement an onsite renewable energy source for electricity, and the provision of free on-site charging as incentive to encourage smooth transitioning to Electric Vehicles for employees. On-site solar generation is capable of meeting 50% of the electricity demands and help reduced emission by half.

Similarly, effort can be channelled towards procurement of REGO-backed renewable energy tariffs for electricity supply to the office. This will ensure that electricity comes from clean sources such as solar or wind power and will eliminate carbon emissions associated with purchased electricity from the national grid. This will reduce emissions by approximately 1.63 tCO_2e per year using the Market Based emission factor.

8.3.2 Energy Efficiency

Code Institute should consider the installation of LED lighting to replace fluorescent and incandescent lighting to achieve significant energy savings. Where financially feasible, further implementation of automated controls should also be combined with LED technology to achieve full optimisation. The installation of technology such as PIR motion and daylight sensors for lighting, CO_2 sensors for ventilation

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and temperature sensors can help to ensure environmental parameters in the office are kept to the most efficient levels.

Where possible, the Client should consider replacing extended monitors with more energy efficient ones to reduce energy demand as more recent extended monitors are deemed to be more energy efficient.

Making use of energy efficient modes on devices such as computers (hibernation, reducing brightness etc.) and photocopiers (standby modes) can help to reduce unnecessary consumption outside operating hours.

A 5% increase in energy efficiency per year is considered to an appropriate target to set, which is in line with the IPCC target of achieving a 45% reduction by 2030.

8.3.3 Transport and Travel

According to the analysis, air travel amounts to 65.9% of the total business travel emission, therefore the Client should consider setting a target to reduce air travel by 5% year on year. By embracing web conferencing technology, the need to travel for meetings could be significantly reduced. Where there is a requirement to travel internationally, the Client may consider airlines that offer carbon offsetting within the price of the airfare, or as an optional extra. These carbon offsets may be utilised to demonstrate carbon removals as part of future assessments.

Hotel accommodation accounts for 15.71% of the Business travel emissions, therefore the Client should always consider hotels that offer carbon offsetting. Also, look for eco-friendly hotels which promote eco-friendly initiatives and can demonstrate that they are achieving tangible results.

The Client should also aim to reduce other indirect travel such as employee business mileage and rail travel. This may be achieved via the implementation of a green travel plan that promotes active travel. Emissions from employee business mileage could be further reduced by leasing electric vehicles, rather than employees using their personal vehicles. A 5% annual reduction is considered achievable.

8.3.4 Employee Commuting

Employee commuting represents the Client's single largest emissions source, this being 55.60% of the total emission for 2023 reporting year. Sustaining working from home practices and utilising video calling technologies where feasible will help to reduce employee commuting.

To reduce the impact of employee commuting, the Client should consider implementing a green travel plan, promoting public transport opportunities and through introduction of car share scheme and help to buy green fleet for employees.

Similarly, the introduction of cycle to work schemes would also support the promotion of active modes of travel.

8.3.5 Waste

The Client should aim to reduce general and recycling waste at the office space in Dublin. A 5% annual reduction in waste generation is considered achievable.

8.4 Carbon Reduction Pathway

The figure below represents an indicative carbon reduction pathway based on the above actions. The figure shows that with relatively modest annual targets, the business can achieve carbon reductions in line with global targets without dramatic changes to operations. The indicative carbon reduction plan is based on current operations and company size. It does not take into account any projected business growth. However, this should be factored into any future carbon footprint assessment.

For the near-term NetZero target of 2030, in line with the SBTi near time target for organisation to reduce emission by 45% before 2030, it is expected that Code's Institute emission is reduced to 41.8 tCO_2e judging from the business-as-usual emission of 2023.

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Figure 6: Carbon Reduction Plan Based on Year on Year Emission Reduction Against 2023 Baseline Emissions

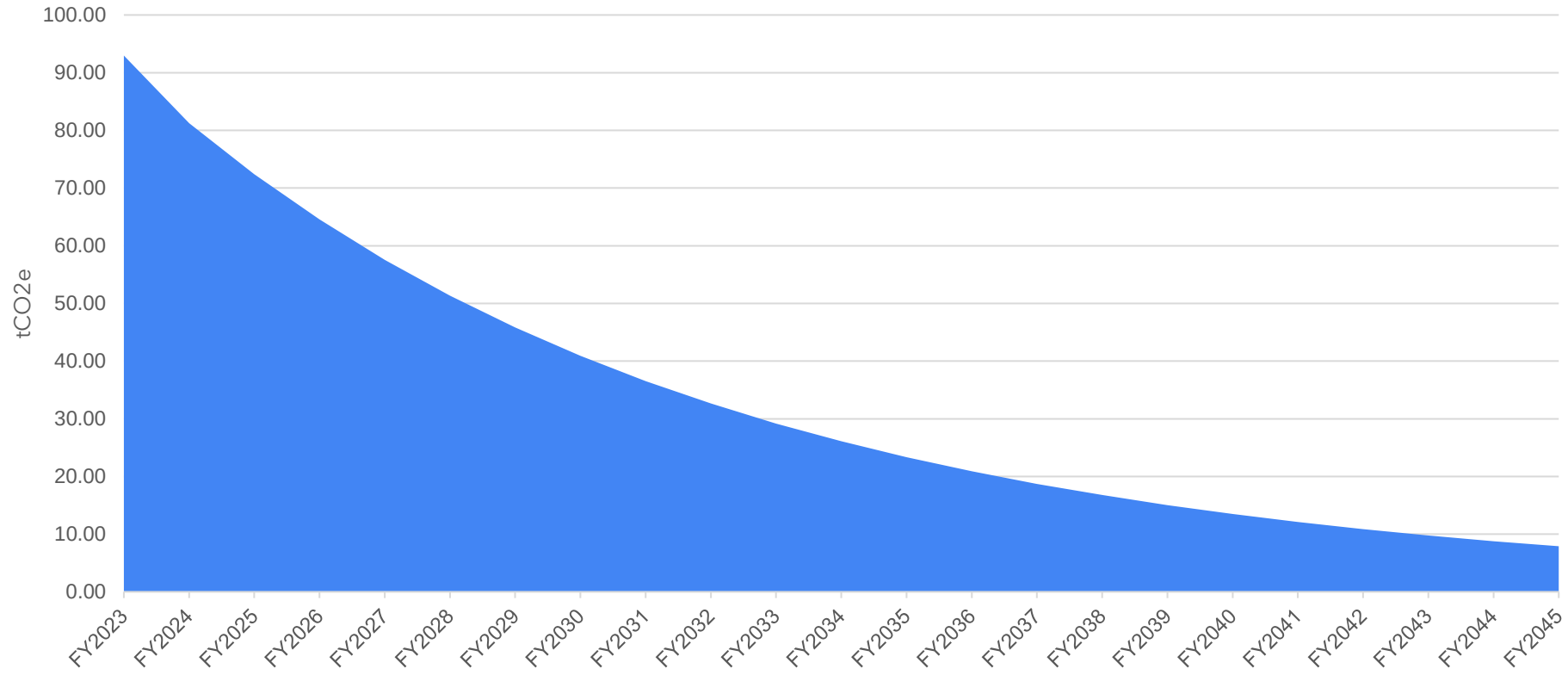

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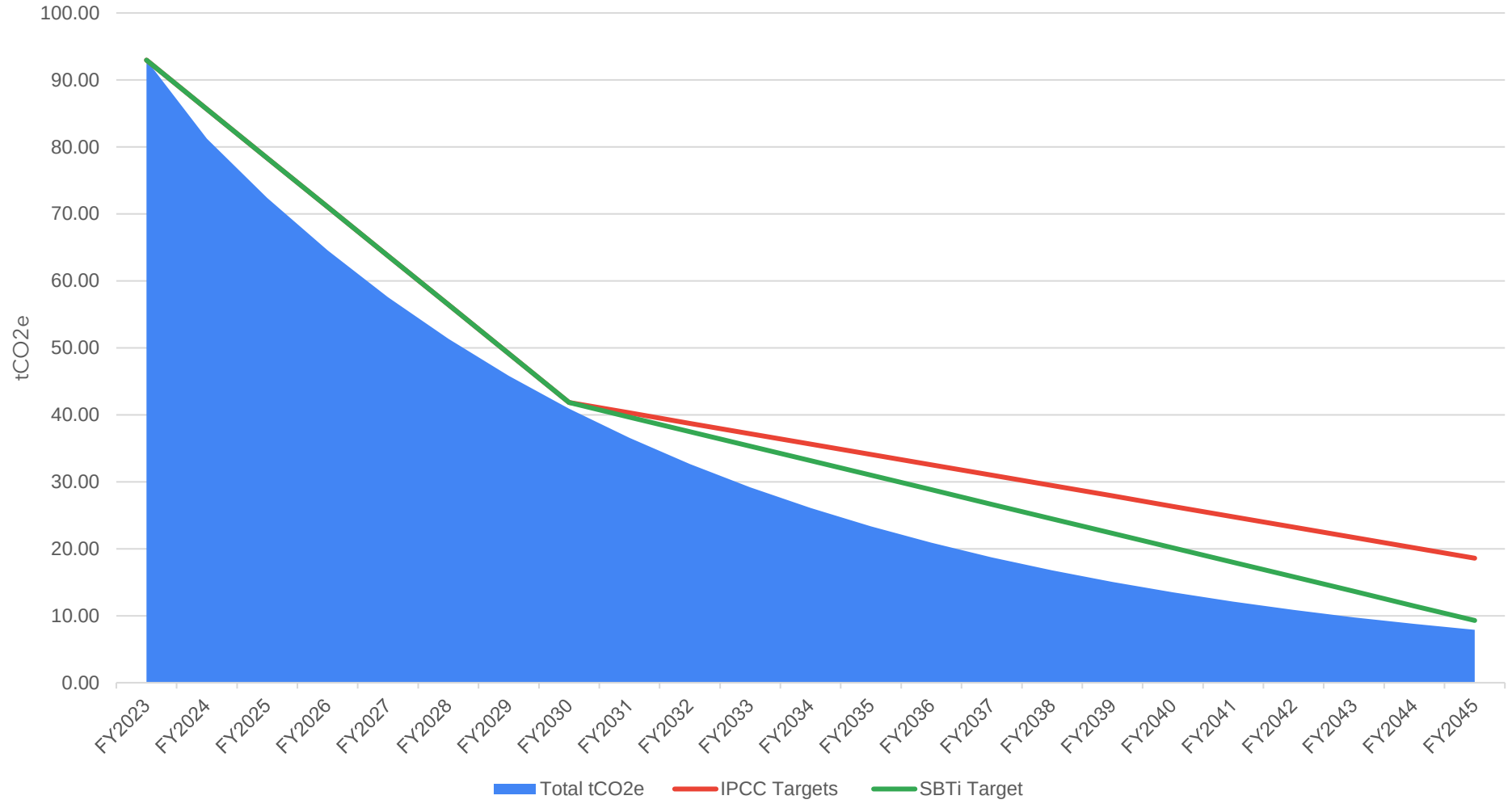
Figure 7: Indicative Carbon Reduction Pathway (2023 to 2045)



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Appendix A – Limitations

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Limitations

The recommendations contained in this Report represent Lucion Delta-Simons professional opinions, based upon the information listed in the Report, exercising the duty of care required of an experienced Sustainability Consultant.

Lucion Delta-Simons obtained, reviewed and evaluated information in preparing this Report from the Client and others. Lucion Delta-Simon's conclusions, opinions and recommendations has been determined using this information. Lucion Delta-Simons does not warrant the accuracy of the information provided to it and will not be responsible for any opinions which Lucion Delta-Simons has expressed, or conclusions which it has reached in reliance upon information which is subsequently proven to be inaccurate.

This Report was prepared by Lucion Delta-Simons for the sole and exclusive use of the Client and for the specific purpose for which Lucion Delta-Simons was instructed. Nothing contained in this Report shall be construed to give any rights or benefits to anyone other than the Client and Lucion Delta-Simons, and all duties and responsibilities undertaken are for the sole and exclusive benefit of the Client and not for the benefit of any other party. In particular, Lucion Delta-Simons does not intend, without its written consent, for this Report to be disseminated to anyone other than the Client or to be used or relied upon by anyone other than the Client. Use of the Report by any other person is unauthorised and such use is at the sole risk of the user. Anyone using or relying upon this Report, other than the Client, agrees by virtue of its use to indemnify and hold harmless Lucion Delta-Simons from and against all claims, losses and damages (of whatsoever nature and howsoever or whensoever arising), arising out of or resulting from the performance of the work by the Consultant.

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Appendix B – PPN 06/21 Carbon Reduction Plan

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Supplier name: Code Institute

Publication date: 27th August 2024

Commitment To Achieving Net Zero

Code Institute has appointed Lucion Delta-Simons Ltd to support in the development of a baseline carbon emissions footprint, and the production of a meaningful strategy for reduction of operational emissions to achieve Net-Zero as early as possible.

Code Institute is committed to achieving Net Zero emissions for Scope 1, 2 and relevant Scope 3 sources no later than 2050.

Baseline Emissions Footprint

Baseline emissions are a record of the greenhouse gases that have been produced in the past and were produced prior to the introduction of any strategies to reduce emissions. Baseline emissions are the reference point against which emissions reduction can be measured.

Baseline Year: 1st January 2023 to 31st December 2023	
Additional Details relating to the Baseline Emissions calculations.	
Historic baseline which originates from the requirements under this measure. There has been no previous carbon reporting related to PPN06/21 or otherwise.	
Baseline year emissions:	
Emissions	**Total (tCO_2e)**
Scope 1	**N/A**
Scope 2	**1.625 tCO_2e**
Scope 3 (Included Sources)	**91.34 tCO_2e**
Total Emissions	**92.96 tCO_2e**

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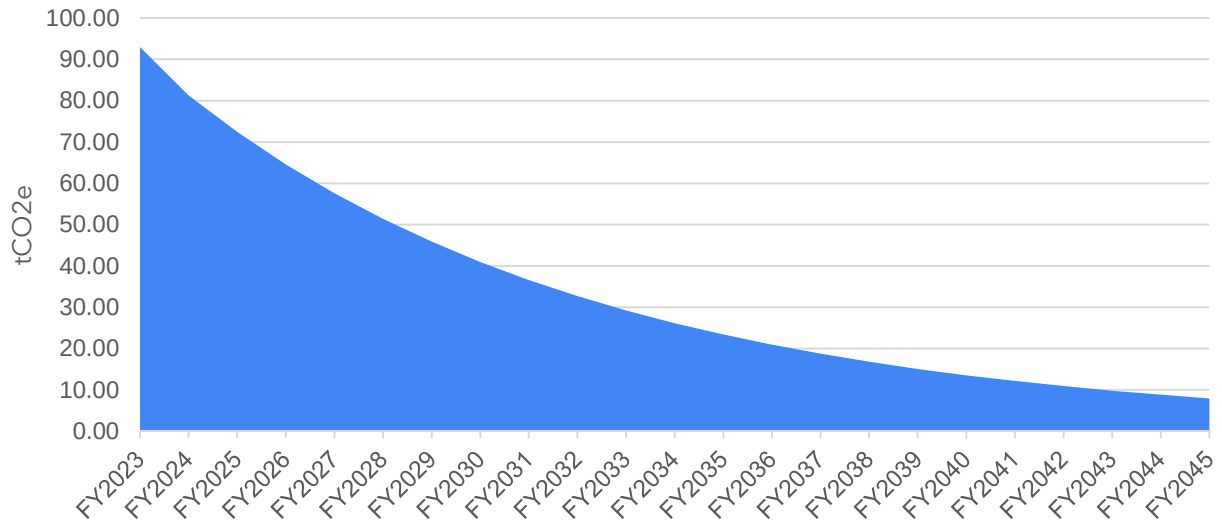
Current Emissions Reporting

Reporting Year: 1st January 2023 to 31st December 2023	
Emissions	**Total (tCO_2e)**
Scope 1	**N/A**
Scope 2	**1.625 tCO_2e**
Scope 3 (Included Sources)	**91.34 tCO_2e**
Total Emissions	**92.96 tCO_2e**

Emissions Reduction Targets

In order to continue our progress to achieving Net Zero, we have adopted the following carbon reduction targets. We project that carbon emissions will decrease over the next 23 no. years to 8.432 tCO_2e by 2045. This is a reduction of 90.93% from the 2023 New Baseline which is a Business-as-Usual emission representation as against the 2021 emission value which reflect business impact activities by Covid. Progress against these targets can be seen in the graph below:

Business as Usual Carbon Reduction Pathways



Carbon Reduction Projects

Code Institute operates in a way that is considerate of its environmental impact, and through the use of agile and home workers has worked to limit the need for business travel and employee commuting.

Declaration and Sign Off

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

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

At the moment, no carbon reduction plan has been implemented yet. However, plans are in place to implement significant carbon reduction strategies.

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

Signed on behalf of the Supplier:

Name: Jim Cassidy

Position: CEO

Signature: DocuSigned by: 84E422805C5E452...

Date: 09 September 2024