

Carbon Neutral  
PAS 2060:2014 Specification

# Cranswick Country Foods (Watton)

Qualifying Explanatory Statement



[Mission Zero team](#)

CRANSWICK COUNTRY FOODS, BRANDON ROAD, WATTON,  
NORFOLK, IP25 6LW

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## 1. Introduction

- a. PAS 2060:2014 requires that an entity making a declaration in respect to carbon neutrality, in accordance with its provisions, make a qualifying explanatory statement (QES) that includes the evidence substantiating the declaration. This document forms the QES that demonstrates the commitment of Cranswick plc's Watton site (Cranswick Country Foods) to achieving carbon neutrality, which includes evidence substantiating the declaration under PAS 2060. All information is believed to be accurate at the time of issue. Should any further information be brought forward that would affect the validity of the statements herein, this document will be updated accordingly to reflect the most recent status of carbon neutrality for Cranswick Watton site.
  
- b. Cranswick PLC is a leading UK food producer and supplier of premium, fresh, and added-value products. The company is listed on the London Stock Exchange and is a constituent of the FTSE 250 index.  
  
Cranswick PLC has pledged to become the world's most sustainable meat business, has committed to a Net Zero target by 2040, and is in the process of setting a group-wide Science-based target to encourage their individual sites to hit the Net Zero target in 20 years' time.
  
- c. Cranswick Country Foods (Watton or 'the site' hereafter) is one of Cranswick PLC's abattoir sites that specialises in the processing of pork. This site forms part of the

food and agriculture industry, more specifically meat (pork and chicken, mainly) production, which contributes to the increase in significant amounts of greenhouse gases in the UK each year.

Watton has started its own journey as a site to reduce its Scope 1 & 2 carbon equivalent emissions. The historic site emission data will be discussed in this document, including a detailed analysis of the current state and future ambition.

Overall, this document will outline the site's road map to achieving PAS 2060 Carbon Neutrality for the 2020-2021 Financial Year (FY 20-21).



*Figure 1. View of Cranswick PLC Watton site.*

Site Address: Cranswick Country Foods, Brandon Road, Watton, Norfolk, IP25 6LW

d. General Information

Information required under PAS 2060:2014 guidance	Cranswick Country Foods (Watton), Cranswick PLC
Individual(s) responsible for the evaluation and provision of data necessary for the substantiation of the declaration	Brian Wentworth, Environmental & Sustainability Advisor, Watton William Clare, Project Manager, Veris Strategies / Avon Energy Stuart Fowler, Third Party Auditor, Avon Energy on behalf of Carbon Footprint Ltd
Entity responsible for making the declaration	Cranswick Foods PLC, Watton site
Subject of PAS 2060 declaration	Scope 1 & 2 of all direct operational emissions of the Watton site's operational boundaries
Rationale of the selection of the subject	The scope and subject of this PAS 2060 includes all direct emissions in operational control, as stated in the PAS 2060:2014 guidelines.
Type of conformity assessment undertaken	3 <sup>rd</sup> party validation (ISO14064-3)
Application Period	April 2020 – March 2021 (FY 20-21)
Commitment Period	Continued annual commitment to offset operational emissions from Scopes 1 & 2 aligned to the financial year commencing 2020-2021 up to Net Zero emissions by 2040 or sooner.
Senior Representative Signature	
Name and Position:	Magdalena Arrowsmith Operations Director
Date:	21 <sup>st</sup> July 2021

e. Checklist for QES supporting declaration of achieving carbon neutrality.

Information required under guidance	Response
Define standard and methodology used to determine its GHG emissions reduction	Section 2 b, 2 c
Confirm that the methodology used was applied in accordance with its provisions and the principles set out in PAS 2060 were met.	Section 2 b, 2 c
Provide justification for the selection of the methodologies chosen to quantify reductions in the carbon footprint, including all assumptions and calculations made and any assessments of uncertainty. (The methodology employed to quantify reductions shall be the same as that used to quantify the original carbon footprint. Should an alternative methodology be available that would reduce uncertainty and yield more accurate, consistent, and reproducible results, then this may be used provided the original carbon footprint is re-quantified to the same methodology, for comparison purposes. Recalculated carbon footprints shall use the most recently available emission factors, ensuring that for purposes of comparison with the original calculation, any change in the factors used is considered).	Section 4 of this report, and the Carbon Footprint Verification report (provided upon request, publicly available)
Describe how reductions have been achieved and any applicable assumptions or justifications	Section 5 a, 5 b
Describe the actual reductions achieved in absolute and intensity terms and as a percentage of the original carbon footprint.(Quantified GHG emissions reductions shall be expressed in absolute terms and shall relate	Section 4 b

to the application period selected and/or shall be expressed in emission intensity terms (e.g. per specified unit of product or instance of service)).	
State the baseline / qualification date	Section 1 d
Record the percentage economic growth rate for the given application period used as a threshold for recognising reductions in intensity terms.	-9.9%
Provide an explanation for circumstances where a GHG reduction in intensity terms is accompanied by an increase in absolute terms for the determined subject.	58% reduction in absolute site emissions since 2017-2018
Select and document the standard and methodology used to achieve carbon offset.	Section 6
Offsets generated or allowance credits surrendered represent genuine, additional GHG emission reductions elsewhere	Section 6
Projects involved in delivering offsets meet the criteria of additionality, permanence, leakage and double counting. (See the WRI Greenhouse Gas Protocol for definitions of additionality, permanence, leakage and double counting).	Section 6
Carbon offsets are verified by an independent third-party verifier.	Section 6
Credits from Carbon offset projects are only issued after the emission reduction has taken place	Section 6
Credits from Carbon offset projects are retired within 12 months from the date of the declaration of achievement.	Section 6

Credits from Carbon offset projects are supported by publicly available project documentation on a registry which shall provide information about the offset project, quantification methodology and validation and verification procedures.	Section 6
Credits from Carbon offset projects are stored and retired in an independent and credible registry.	Section 6
Document the quantity of GHG emissions credits and the type and nature of credits actually purchased including the number and type of credits used and the time period over which credits were generated including:	Section 6
Which GHG emissions were offset	Section 6
The actual amount offset	5,083.56 tonnes of CO2e
The type of credits and projects involved	Voluntary Carbon credits: VCS/Verra, Gold Standard, Section 6
The number and type of carbon credits used and the time period over which the credits have been generated.	Links in Section 6
For events, a rationale to support any retirement of credits in excess of 12 months including details of any legacy emission savings, taken into account.	N/A

Information regarding the retirement/cancellation of carbon credits to prevent their use by others including a link to the registry or equivalent publicly available record, where the credit has been retired.	Section 6
Specify the type of conformity assessment.	Section 1 d
Date the QES and have it signed by the senior representative of the entity concerned (e.g. CEO of a corporation; Divisional Director, where the subject is a division of a larger entity; the Chairman of a town council or the head of the household for a family group).	Section 1 d
Make QES publicly available and provide a reference to any freely accessible information upon which substantiation depends	Completed end of July 2021

## 2. Project Summary

### a. Executive summary

Watton are a site, part of the Cranswick Country Foods group that are all working towards carbon neutrality over the coming years. Watton's scope 2 emissions are all accounted for by the market-based approach of REGO certificates purchased across group. The scope 1 on site is made up mainly of natural gas for heating, and diesel for vehicles. They are two key issues that require focus and planning to reduce. This document summarises the ways the site is addressing these emissions long term, and how they are offsetting them in the immediate term.

### b. Methodology

This carbon neutral project applied the Greenhouse Gas Protocol Corporate Standard (2015 edition) as a framework in accounting for emissions and developing an emissions inventory.

The business rationale for compiling the GHG inventory:

1. Managing risks and identifying reduction opportunities on site
2. Public reporting and participation in reporting programmes internally and externally (where applicable)
3. Participating in GHG markets in the purchasing of offsets (Scope 1 & 2)
4. Recognition for voluntary early action towards group Net Zero target

The boundaries of the site have been defined as 'operational', which includes all on-site and off-site activities, processes, services, and impacts. This is applicable to Watton as an operational entity, not Cranswick PLC, and will therefore only include operational authority of the site as opposed to the company's operational authority.

The standard classifies emissions into 3 'scopes':

**Scope 1.** Emissions that arise from direct emission, primarily carbon-based fuel combustion, including on site combustion and processes using natural gas, and refrigerants as fugitive emissions.

**Scope 2.** Emissions which arise from purchased electricity, heat, steam, etc. – but whose production is from carbon-based fuel.

**Scope 3.** All other emissions, notably those that arise from:

- a. Purchased goods and services including farm produce up stream
- b. Supply chain logistics from third party freight vehicles
- c. Business travel & Employee commuting
- d. Waste disposal
- e. Investments

Scope 3 emissions are being developed at group level. Scope 3 data is not included in this report or included in the assessment and specification to PAS 2060. If the decision to include Scope 3 emissions changes within the timeline of the site's carbon neutral specification, then Scope 3 emissions will be included.

**c. Specification (PAS 2060, ISO14064-1)**

The specification in use to demonstrate carbon neutrality for the site is the BSI PAS 2060:2014 standard. PAS 2060 is an internationally recognised and applicable standard that sets out the requirements for achieving and demonstrating carbon neutrality – allowing the site to maintain a consistent GHG inventory with accuracy and transparency. The benefits of PAS 2060 are:

- Meet customer, stakeholder, industry, and legal expectations
- Reduce greenhouse gas emissions and quantify your carbon footprint

- Identify areas of inefficiency and improve overall performance
- Make cost savings by reducing energy consumption and bills
- Gain credibility with an accurate carbon neutrality statement

Further to the above, the overall site emissions inventory for scopes 1 and 2 were audited and verified by **Carbon Footprint Ltd**. The methodology used for building the emissions inventory was ISO14064-1, and the verification of the inventory was in accordance with ISO14064-3:2019. The report issued by the 3<sup>rd</sup> party auditing team Carbon Footprint Ltd states: 'Cranwick's boundaries and system has satisfactorily captured the most significant and relevant emissions sources.'

### 3. Context and drivers

#### a. Site Governance & Strategy

The site has seen a considerable reduction since 2017 in energy use, which has positively contributed towards high environmental performance. As of March 2021, the site established a Mission Zero team to govern the multiple carbon reduction projects over the coming years. This governance team for PAS 2060 Carbon

Neutrality is below in the RACI table:

Roles / Stages	Site Director <b>Magda Arrowsmith</b>	Programme Lead(s) <b>Brian Wentworth</b>	Project Lead <b>William Clare</b>	Project Sponsor <b>Cranswick Group /Second Nature team/ Head of Compliance and Sustainability</b>	Project Auditor <b>Carbon Footprint Ltd</b>
Data Gathering & Analysis	<b>A</b>	<b>I / C</b>	<b>R</b>	<b>C</b>	
Carbon Management Plan	<b>A</b>	<b>I / C</b>	<b>R</b>	<b>I</b>	
Public Commitments	<b>A</b>	<b>R</b>	<b>C</b>		
Offset Portfolio Development	<b>A</b>	<b>C</b>	<b>R</b>		
Third Party Audit	<b>I</b>	<b>I</b>	<b>C</b>	<b>C</b>	<b>A / R</b>
Carbon Neutral PAS 2060 approval	<b>I</b>	<b>I</b>	<b>R</b>	<b>I</b>	<b>A / R</b>

R = Responsible      A = Accountable      C = Consulted      I = Informed

The site vision and strategy are inextricably linked to Cranswick's overarching targets, with any additions noted below. Watton's targets for 2021 are to be:

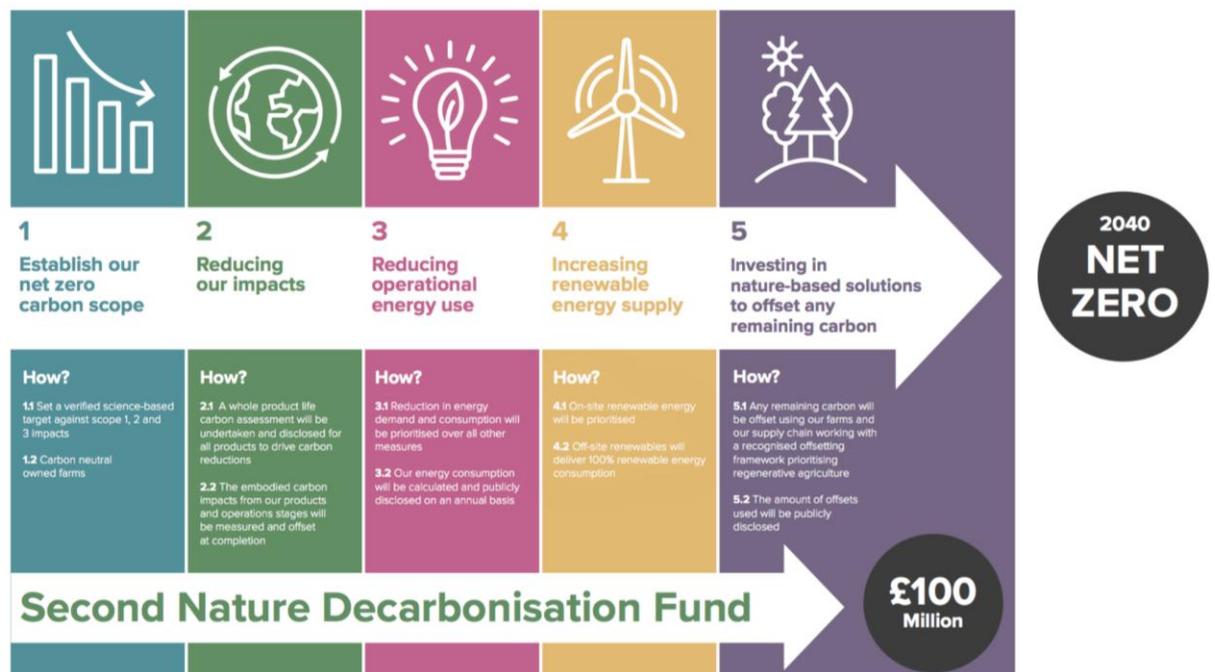
1. To be a carbon neutral site from 2021
2. To report on savings of carbon in all future energy reduction programmes on site
3. To work towards emission reduction activities that assist Group's SBT and Net Zero targets

## b. Cranswick PLC Targets

As part of their Second Nature sustainability programme, Cranswick have set 3 ambitious targets in relation to carbon management:

1. The world's most sustainable meat business (2018)
2. Committing to the Science Based Targets initiative and setting a target (2020)
3. Net Zero by 2040, 10 years ahead of the UK Government target (2020)

Cranswick's Net Zero journey is broken down into 5 strategic aims, that ultimately form the base for Watton site's carbon reduction journey:



## 4. Emissions inventory & projections

### a. Measurement

At Watton, a 5-stage process in building an emissions inventory was developed:

1. **SLT Master Class:** an introduction for the site's senior leadership team to net-zero, carbon, and the management of emissions. This also involved the establishment of a 'Mission Zero' governance team as mentioned above to ensure ownership and accountability throughout the project.
2. **Scope & Boundaries:** Using the 'Operational Boundaries' approach as stated in the GHG Protocol Corporate Standard. This determined that the site's emissions were based on the electricity and gas consumption metered to the site, any transport owned by the site (within and on the site), and f-gas refrigerant leakage from the site's fridges / cooler / air conditioning units.
3. **Data Gathering:** with assistance from onsite HS&E and engineering teams, the data gathered was from source, metered data based on monthly readings both for indirect electricity consumption, and for natural gas consumption. The site's electricity has been backed by REGOs (Renewable Energy Guarantee of Origin) certificates since March 2018 and are reflected in the inventory. Refrigerant data was also gathered, with the site using R407a, R404a, R507a, R-134a and R508b.

The data and emissions were split into the financial year for the site from April to March. The data is gathered to present for a baseline year of 2019-2020 and up to the current reporting year of 2021. However, this report references earlier yearly data for purpose of highlighting reductions in emissions for the site.

Therefore, the years of emissions included in the emissions inventory are:

- i. 2017-18
- ii. 2018-19
- iii. 2019-20
- iv. 2020-21

**4. Data Interpretation:** the site's emissions data was then calculated using a combination of the following:

- a. UK location-based conversion factors for kgCO<sub>2</sub>e/kWh for electricity. This changed from year to year based on the grid's gradual decarbonisation from the baseline year of 2017:

Year	GB Grid Carbon Intensity (kgCO <sub>2</sub> e/kWh)
2017	0.35156
2018	0.28307
2019	0.2556
2020	0.23314
2021	0.23314

- b. UK location-based conversion factors for kgCO<sub>2</sub>e Natural Gas from 2017:

Year	Natural Gas Carbon Intensity (kgCO2e/kWh)
2017	0.18416
2018	0.18396
2019	0.18385
2020	0.18387
2021	0.18387

c. UK location-based conversion factors for kgCO2e Red Diesel from 2017:

Year	Gas Oil (kgCO2e/litre)
2017	2.75776
2018	2.75776
2019	2.75776
2020	2.75776
2021	2.75776

d. UK location-based conversion factors for kgCO2e LPG from 2017:

Year	LPG (kgCO2e/kWh)
2017	0.21448
2018	0.21448
2019	0.21448
2020	0.21448
2021	0.21448

e. UK location-based conversion factors for kgCO2e Diesel from 2017:

Year	Diesel for onsite vehicles (kgCO2e/litre)
2017	2.68787
2018	2.68787
2019	2.68787
2020	2.68787
2021	2.68787

f. UK location-based conversion factors for kgCO<sub>2</sub>e Fuel Oil from 2017

Year	Fuel oil (kgCO <sub>2</sub> e/kWh)
2017	0.26775
2018	0.26775
2019	0.26775
2020	0.26775
2021	0.26775

**b. Scope 1 & 2 emissions**

1. Scope 1 emissions that significantly contribute to the site's GHG inventory

are:

- a. **Stationary combustion of natural gas:** this measured at a total over the period from (Mar) 2017 – (Mar) 2021 at: 12,556.19 t/CO<sub>2</sub>e. In the reporting period (2020-2021), natural gas accounted for 3045.49 t/CO<sub>2</sub>e. The natural gas is mainly used for on-site boilers used in the heating of water.
- b. **Diesel for onsite vehicles:** over the period from (Mar) 2017 – (Mar) 2021, this measured a total of 6,309.05 t/CO<sub>2</sub>e. Diesel for onsite vehicles made up a large part (1,554.80 t/CO<sub>2</sub>e) of the site's emissions in the reporting period (2020-2021).
- c. **Red diesel:** this made up 348.47 t/CO<sub>2</sub>e for the reporting period (2020-2021).
- d. **LPG consumption:** this accounted for 129.02 t/CO<sub>2</sub>e for the reporting period (2020-2021).
- e. **Refrigerant gas:** F-gas leakages didn't occur in the reporting period (2020-2021). However, prior to the reporting period F-gas leakages on site have resulted in 8,583.31 t/CO<sub>2</sub>e (Mar 17-Apr 20). A quantitative

approach defined by the GHG Protocol Corporate Standard's F-Gas calculator was used to calculate this.

2. Scope 2 emissions are backed by REGOs due to the Cranswick group-wide procurement of 100% renewable energy decision since 2018. The electricity has however been calculated both from a market-based and location-based approach, meaning the would-be emissions are still collected for reporting purposes. This is to encourage further efficiency of the site's electricity demand. The market mechanism for the procurement of 100% renewable energy is through UK-based Renewable Energy Certificates known as REGOs (Renewable Energy Guarantee of Origin).
  - a. **Market-based approach:** this is measured as 0 for the site as all indirect electricity has been purchased from renewable sources.
  - b. **Location-based approach:** the electricity generated using the GB grid's emissions factor is a total of 16,078.67 t/CO<sub>2</sub>e from (Mar) 2017 to (Mar) 2021. The total for the offsetting period (2020-2021) is 3,426.70 t/CO<sub>2</sub>e. However, the market-based approach will be used for the specification of PAS 2060 when offsetting emissions.

All other emissions were either negligible and not significant enough to report on, or out of scope (not categorised as Scope 1 or 2).

**Emissions summary (detail found in the emissions inventory):**

To Date	Total Scope 1	Total Scope 2	Total Emissions of site (location-based approach)	Total Emissions of site (market-based approach)
	29,468.63	16,078.67	45,547.30	29,468.63

Baseline year	Scope 1	Scope 2	Total (location-based)	Total (market-based)
	5,183.56	3,552.33	8,735.89	8,735.89

Offsetting period	Scope 1	Scope 2	Total (location-based)	Total (market-based)
	5,083.56	3,426.70	8,510.26	5,083.56

Emissions to be offset	Total
	5,083.56

**c. Scope 3 measurement**

Reporting on scope 3 emissions will begin soon, which will incorporate the wider upstream and downstream impact of the site.

## 5. Reduction solutions

### a. 2017 – 2021

Since 2017, the site has worked on several efficiency programmes to increase productivity, replace old equipment and machinery, and enhance the site's environmental performance. Reduction initiatives since 2016 include:

- **Replacements of the retail refrigeration plant** to reduce energy consumption and raw material usage.
- **Heat recovery system** has been installed to reduce the use of the boiler, thus saving gas consumption.
- **Boiler upgrade** has taken place which has improved efficiency.
- **LED lighting installed across the site** to curb inefficiency and reduce energy consumption.

Along with a gradual decarbonisation of grid electricity, and further site efficiencies, the site reduced its overall emissions by **59% since 2017-2018 (or 7,2534.68 t/CO<sub>2</sub>e)**

*Figure 2. Total site emissions location-based approach (2020-2021)*

Scope 1 & 2 (Location-based) 2020-2021

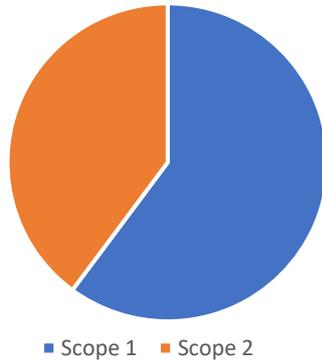


Figure 3. Site reduction against Production (carbon intensity)

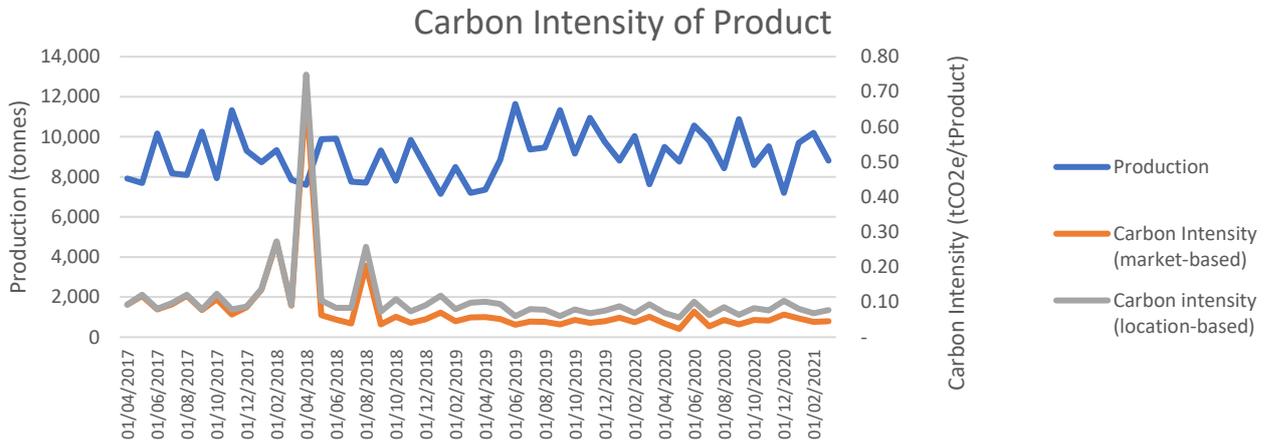
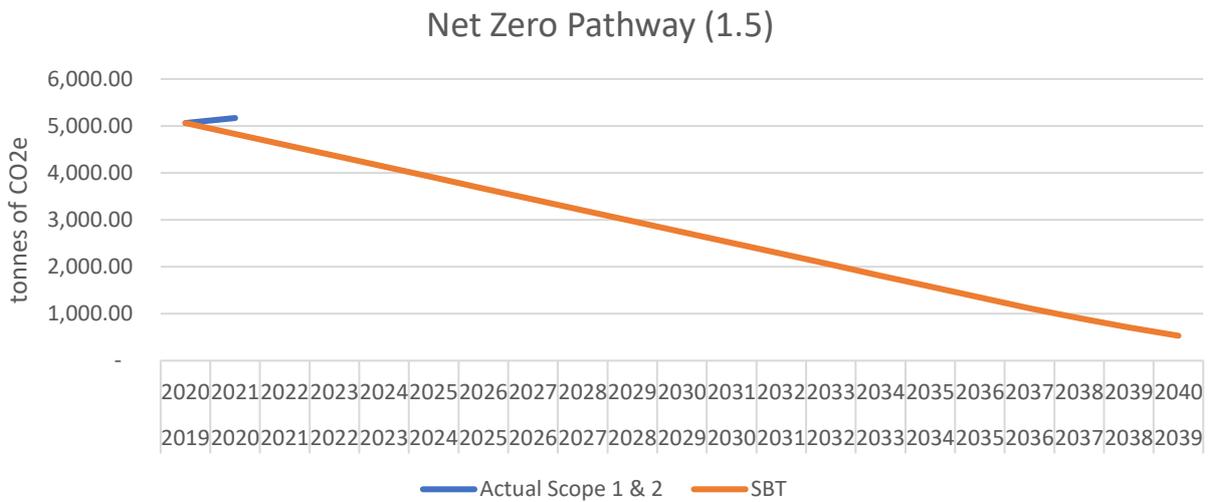


Figure 4. Absolute emissions against SBT with 2019-2020 baseline year



Performance highlights of the site:

- 58% reduction in absolute carbon of Scope 1 & 2 since 2017-2018

- In 2017/18 year, the average amount of carbon produced per product was 0.11 tCO<sub>2</sub>e/t Prod. In 2020-21, this figure was 0.05 tCO<sub>2</sub>e, showing a 55% reduction in emission intensity of product sold since 2017-2018.

#### **b. 2021 - Reduction Solutions Outlook**

- **Replacement of the F-gas on site:** F-gas used on site which has a high global warming potential will be replaced with ammonia systems which has zero global warming potential.
- **Reduction of steam usage on site:** Shrink tunnel equipment used in the packing stage will be replaced to reduce steam usage. Office heating will be replaced with heat pumps and a heat recovery system.
- **Upgrade steam system:** Condensation harvesting to harvest and re-use hot water
- **Reduction of propane gas on site:** By upgrading the singer and decommissioning the gas cylinder in slaughter, the consumption of propane gas on site will be reduced.
- **Installation of CHP:** This will improve efficiency and utilise the heat produced in the production of electricity.

- **Solar panel installation and integration:** looking into the installation of a solar PV system on the roof and on land adjacent to the site.
- **Harvesting roof water:** This will be used for lorry wash and lairage hygiene to reduce the water consumption on site.
- **Further investigate site waste management and disposal:** Look at site waste management and disposal instead of having cat 2 and cat 3 just have all down cat 3 and grinder and press to removed excess liquid
- **Heat recovery in the Pennine plant:** This will reduce the amount of heat wasted and the amount of energy used on site.
- **Automatic light and water control:** Automatic controls will reduce energy and water consumption, reducing the site's emissions
- **Changing the input fuel for transport:** Converting lorries to electric or biofuels will reduce the use of fossil fuels on site, contributing to a decrease in emissions on site.
- **Switching to electric forklifts:** Moving away from gas forklifts will reduce gas consumption on site.

- **Research solutions to re-use effluent instead of discharging to river:** This would greatly reduce the site's environmental impact.

c. KPI – carbon reduction target

- The site adheres to the group wide 20% reduction in energy consumption target by 2025. This will have a material impact on the emissions of the site.
- The site also adheres to a net zero emissions target by 2040.

## 6. Offset Portfolio

a. With the approval of the emissions inventory, the offset portfolio reflects the total amount for the agreed offsetting period 2020-2021 (5,171 t/CO<sub>2</sub>e). This is slightly higher (88 tCO<sub>2</sub>e) than the total amount of the site's annual emissions. The difference will be used for next year's running total (factoring in reductions).

b. The offset portfolio was selected by the on-site staff members to reflect the site's strategic aims:

Project Name	Project Type	Quantity (tonnes)
1. Portel-Para Rainforest (REDD+)	Forestry	5,171
2. Doddington North Moor, UK	Forestry	1,000

c. The projects are verified and validated by independent third parties and registered with The Gold Standard and Verra. Projects are given sustainable development goal labels based on the impact they may have beyond carbon sequestration, such as gender equality, food security, and other measures.

d. Here are the links to the publicly retired offset projects that have offset the total:

- Portel-para Amazon Project:

<https://registry.verra.org/myModule/rpt/myrpt.asp?r=206&h=120800>

The site is also purchasing credits in the UK at Doddington North Moor to further their positive role and impact on climate. Link needed.