

Carbon Neutral  
PAS 2060:2014 Specification

Cranswick Country Foods  
(Preston)  
Qualifying Explanatory Statement



Mission Zero team  
CRANSWICK COUNTRY FOODS, STAITHES ROAD, PRESTON, HULL,  
HU12 8TB

## Contents page:

### **1. Introduction**

- a. Introduction
- b. Context
- c. Cranswick Country Foods (Preston)
- d. General Information
- e. Checklist

### **2. Project summary**

- a. Executive summary
- b. Methodology
- c. Specification (PAS 2060)

### **3. Context and drivers**

- a. Site governance & strategy
- b. Cranswick PLC targets

### **4. Emissions baseline & projections**

- a. Measurement
- b. Scope 1 & 2 emissions
- c. Scope 3 measurement

### **5. Reduction solutions**

- a. 2017 – 2021
- b. 2021 onwards

### **6. Offset portfolio**

---

## 1. Introduction

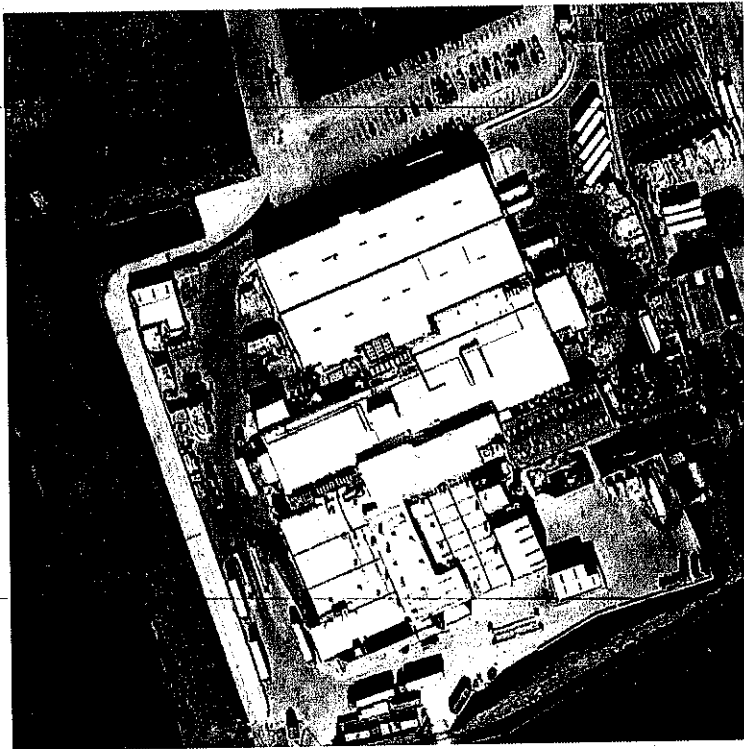
---

- 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 Preston 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 Preston 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 (Preston or 'the site' hereafter) is one of Cranswick PLC's abattoir sites. This site forms part of the food and agriculture industry, more

specifically meat (pork mainly) production, which contributes to the increase in significant amounts of greenhouse gases in the UK each year.

Preston 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 Preston site.*

Site Address: Cranswick Country Foods, Staithe Road, Preston, Hull, HU12 8TB

d. General Information

<b>Information required under PAS 2060:2014 guidance</b>	<b>Cranswick Country Foods (Preston), Cranswick PLC</b>
Individual(s) responsible for the evaluation and provision of data necessary for the substantiation of the declaration	Darren Andrew, Site Director, Preston  James Norrison, Environment Manager, Preston  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, Preston site
Subject of PAS 2060 declaration	Scope 1 & 2 of all direct operational emissions of the Preston 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	<i>Darren Andrew</i> 
Name and Position:	<i>Preston operations Director</i>
Date:	<i>20/9/21</i>

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.	63% 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	13,498 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 September 2021

## 2. Project Summary

### a. Executive summary

Preston is a site, part of the Cranswick Country Foods group that are all working towards carbon neutrality over the coming years. Preston'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 for input for the CHP, and refrigerants. 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 Preston 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 Darren Andrew	Programme Lead(s) James Norrison	Project Lead William Clare	Project Sponsor Cranswick Group /Second Nature team/ Head of Compliance and Sustainability	Project Auditor Carbon Footprint Ltd
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. Preston's targets for 2021 are to be:

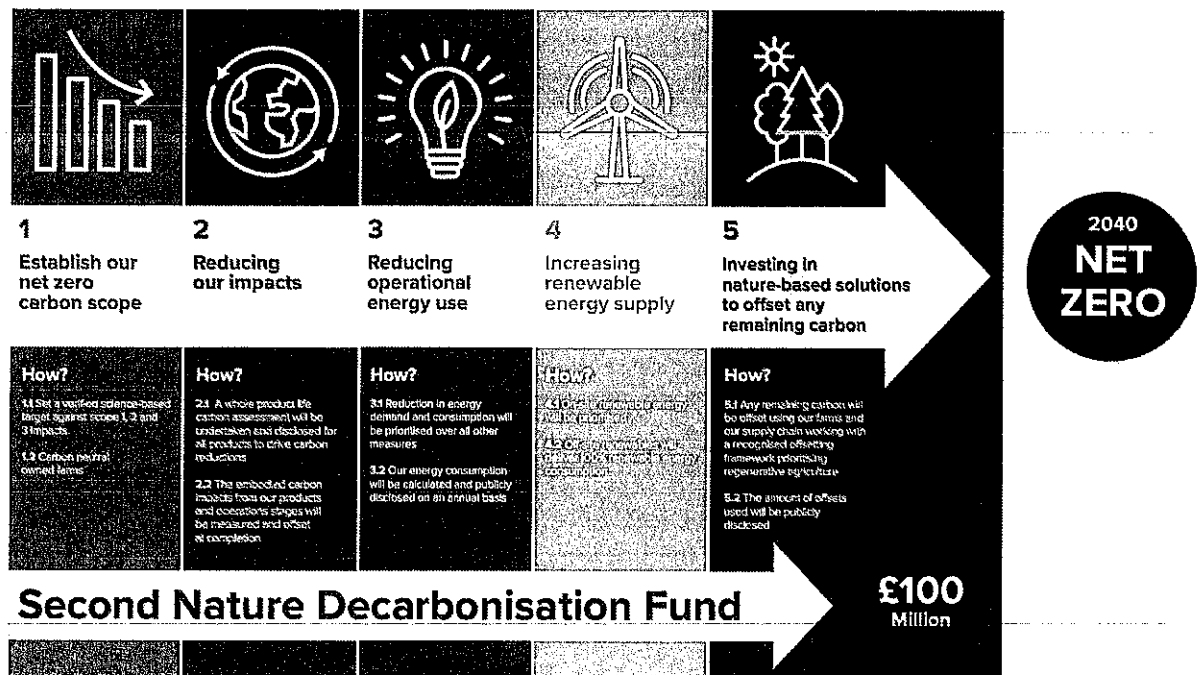
1. To be a carbon neutral site from 2021
2. To report on savings of carbon in all future energy reduction programmes on site
3. To work towards emission reduction activities that assist Group's SBT and Net Zero targets

**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 Preston site’s carbon reduction journey:



---

## 4. Emissions inventory & projections

### a. Measurement

At Preston, 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 R407f, R404a, R507.

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 Gas Oil 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

**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 (Jan) 2017 – (Mar) 2021 at: 13,974.41 t/CO<sub>2</sub>e. In the reporting period (2020-2021), natural gas accounted for 3,408.52 t/CO<sub>2</sub>e. The natural gas is mainly used for on-site boilers used in the heating of water. In addition, the installation of a CHP on site has resulted in additional emissions from the natural gas input. In the reporting period (2020-2021), emissions from natural gas used to run the CHP accounted for 7,131.51 t/CO<sub>2</sub>e.
- b. **Refrigerant gas:** F-gas leakages on site have resulted in 21,710.43 t/CO<sub>2</sub>e (Jan 17 – Mar 21). In the reporting period (2020-2021) F-gas leaks made up a large part of the emissions, accounting for 2,316.85 t/CO<sub>2</sub>e. A quantitative approach defined by the GHG Protocol Corporate Standard's F-Gas calculator was used to calculate this.
- c. **Diesel for onsite vehicles:** over the period from (Jan) 2017 – (Mar) 2021, this measured a total of 4,217.07 t/CO<sub>2</sub>e. Diesel for onsite

---

vehicles made up 902.90 t/CO<sub>2</sub>e of the site's emissions in the reporting period (2020-2021).

d. **Gas Oil:** this made up 12.20 t/CO<sub>2</sub>e for the reporting period (2020-2021).

e. **LPG consumption:** this accounted for 175.83 t/CO<sub>2</sub>e for the reporting period (2020-2021).

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 electricity: 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 15,379.14 t/CO<sub>2</sub>e from (Mar) 2017 to (Mar) 2021. The total for the offsetting period (2020-2021) is 1,036.23t/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)
	32,850.54	16,682.29	49,532.82	32,850.54

Baseline year	Scope 1	Scope 2	Total (location-based)	Total (market-based)
	16,237.15	1,695.22	17,932.37	17,932.37

Offsetting period	Scope 1	Scope 2	Total (location-based)	Total (market-based)
	13,947.80	1,036.23	14,984.03	13,947.80

Emissions to be offset	Total
	13,947.80

**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

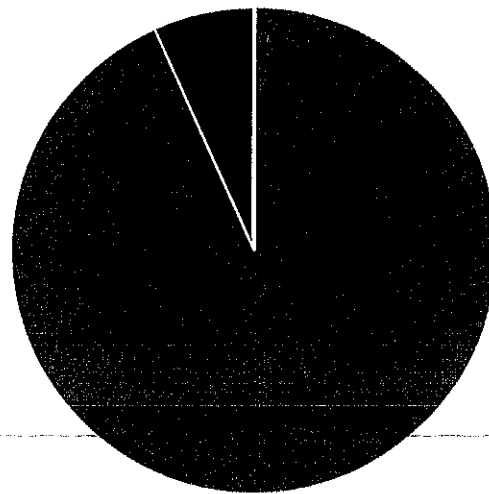
Since 2017, the site has worked on several efficiency programmes to increase productivity, replace old equipment and machinery, and enhance the site's environmental performance. Reduction initiatives since 2016 include:

- All lighting across site has been upgraded to LED. Leading to £1.2m worth of energy savings over 10 years
- F-Gas systems have been changed to Ammonia Glycol between 2017-2020.
- Install of CHP in 2018 with an aim to decarbonise this unit by 2030.

Along with a gradual decarbonisation of grid electricity, and further site efficiencies, the site reduced its overall emissions by **63% since 2017-2018 (or 12068.352 t/CO<sub>2</sub>e)**

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

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



■ Scope 1 ■ Scope 2 (exc CHP)

Figure 3. Site reduction against Production (carbon intensity)

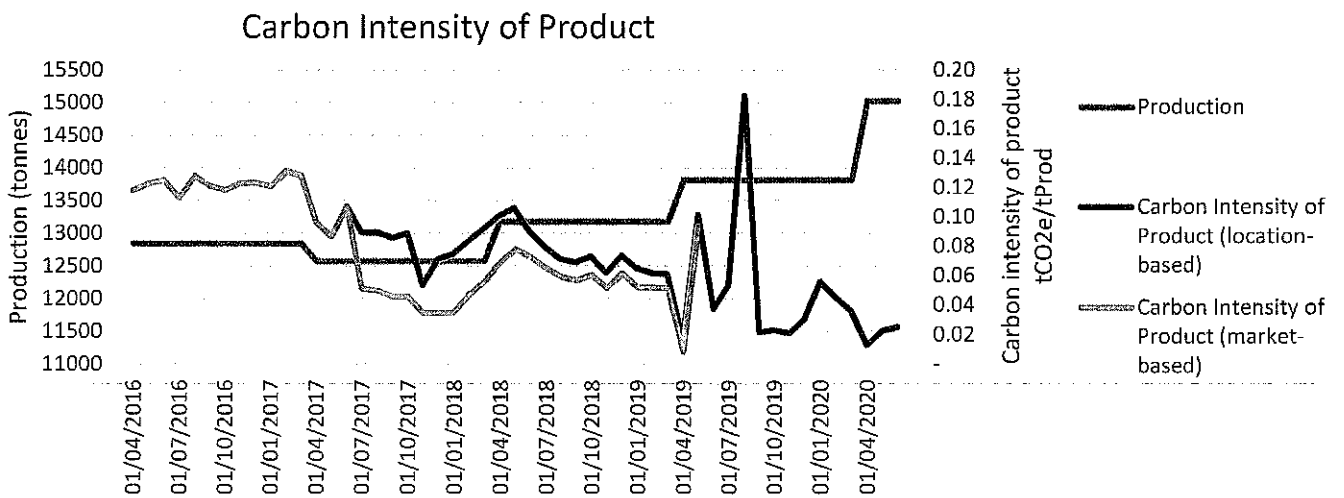
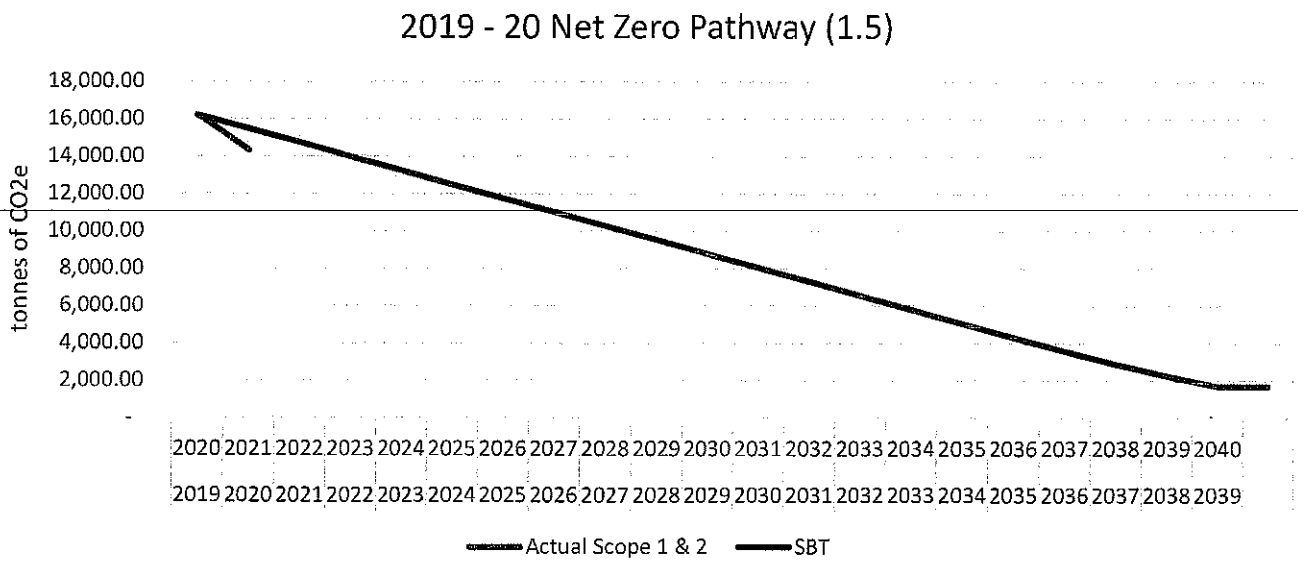


Figure 4. Absolute emissions against SBT



Performance highlights of the site:

- 63% reduction in absolute carbon of Scope 1 & 2 since 2017-2018
- In 2017/18 year, the average amount of carbon produced per product was 0.12 tCO2e/t Prod. In 2020-21, this figure was 0.02 tCO2e/t Prod, showing a 83% reduction in emission intensity of product sold since 2017-2018

#### b. Reduction Solutions Outlook

##### 2021/2022:

**F-Gas reduction** – Aim to have no further F-Gas leakages in this financial year. The overall site aim is 0 F-gas on site by March 2022.

**Green gas certification scheme** – Looking into the possibility of buying RGGO's for a percentage of gas that is purchased from the grid.

**Introducing trial fleet truck** - 1 truck is being introduced into the fleet this financial year that uses power from the engine of the truck to run the refrigeration unit at the back. This removes the need for red diesel.

**Waste feasibility study** – A study will be carried out to assess the potential of biogas for the sites CAT2 and CAT3 waste.

**Waste Warriors Project** – Ensure more recycling takes place on site.

**ISO14001 and ISO50001 accreditation** – Gain ISO14001 accreditation by the end of 2021 and maintain ISO50001.

**2022/2023:**

**Bio LPG** – Researching the possibility of replacing calor gas bulk system with BioLPG.

**Green Hydrogen Fleet** – Letter of intent to a local company has been signed with the site aiming to have 5 trucks running on green hydrogen by the end of 2022/2023 financial year.

**Solar Panels** – Installation of solar panels on the new Preston site extension which has the potential of producing 425,000 kwh annually. In addition there will be research carried out into the possibility of ground mounted solar.

**2023/2024:**

**Expansion of the green hydrogen fleet** – In this project the remaining 10 trucks will be converted to green hydrogen.

**Tree planting** – Planned planting of trees adjacent to the site to make a nature walk.

**Wind turbine** – Investigate the possibility of installation of a wind turbine close to the site.

**Forklift trucks fuel** – Convert the forklift trucks fuel input to BioLPG.

**2024/2025:**

**Conversion of CHP to green fuel** – Research into possibility of changing the fuel source of the CHP to a green source such as green hydrogen or biomethane. This would significantly reduce the emissions from natural gas on site.

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 (13498 t/CO<sub>2</sub>e).
- 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	4779
2. Southern Cardamom (REDD+)	Forestry	4390
3. Solar, Vietnam (VCS)	Energy	4779

- 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>
- Southern Cardamom REDD+ Cambodia Project  
<https://registry.verra.org/myModule/rpt/myrpt.asp?r=206&h=126997>
- Solar power, Vietnam  
<https://registry.verra.org/app/projectDetail/VCS/1974>