

Carbon Neutral
PAS 2060:2014 Specification

Cranswick Gourmet Sausage (Lazenby's)

Qualifying Explanatory Statement



Mission Zero team

LAZENBY'S, 74 HELSINKI ROAD, HULL, HU7 0YW

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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 Lazenby's site (Gourmet Sausage) 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 Lazenby's 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 Gourmet Sausage (Lazenby's or 'the site' hereafter) is one of Cranswick PLC's state-of-the-art manufacturing sites that specialises in the production of

gourmet sausages. 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.

Lazenby's 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).

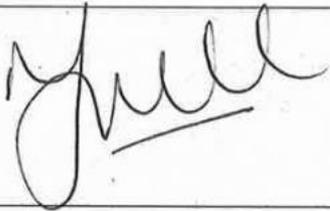


Figure 1. View of Cranswick PLC Lazenby's site.

Site Address: 76 Helsinki Road, Sutton Fields, Hull, HU7 0YW

d. General Information

d. General Information

Information required under PAS 2060:2014 guidance	Lazenby's, Cranswick (plc) Gourmet Sausage
Individual(s) responsible for the evaluation and provision of data necessary for the substantiation of the declaration	Marcus Hoggarth, Site Director, Lazenby's Tom Thompson, Site Health Safety and Environment Manager 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, Lazenby's site
Subject of PAS 2060 declaration	Scope 1 & 2 of all direct operational emissions of the Lazenby's 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 rd 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:	MARCUS HOGGARTH MANAGING DIRECTOR
Date:	27.4.21

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	Section 4 b

emissions reductions shall be expressed in absolute terms and shall relate 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.	1.4 % UK GDP
Provide an explanation for circumstances where a GHG reduction in intensity terms is accompanied by an increase in absolute terms for the determined subject.	N/A, 69% 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:	
Which GHG emissions were offset	Section 6
The actual amount offset	835 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

<p>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.</p>	<p>Section 6</p>
<p>Specify the type of conformity assessment.</p>	<p>Section 1 d</p>
<p>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).</p>	<p>Section 1 d</p>
<p>Make QES publicly available and provide a reference to any freely accessible information upon which substantiation depends</p>	<p>Completed within one month of this QES document being signed</p>

2. Project Summary

a. Executive summary

Lazenby's are a site, part of the Cranswick Gourmet range that are all working towards carbon neutrality over the coming years. Lazenby'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 refrigerant (f-gas) leakage. Albeit low emission quantities, 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

Lazenby's 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 3rd 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 Marcus Hoggarth	Programme Lead(s) Tom Thompson	Project Lead William Clare	Project Sponsor Cranswick Group /Second Nature team/ Head of Compliance and Sustainability	Project Auditor Carbon Footprint Ltd
Data Gathering & Analysis	A	I / C	R	C	
Carbon Management Plan	A	I / C	R	I	
Public Commitments	A	R	C		
Offset Portfolio Development	A	C	R		
Third Party Audit	I	I	C	C	A / R
Carbon Neutral PAS 2060 approval	I	I	R	I	A / R

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. Lazenby's targets for 2021 are to be:

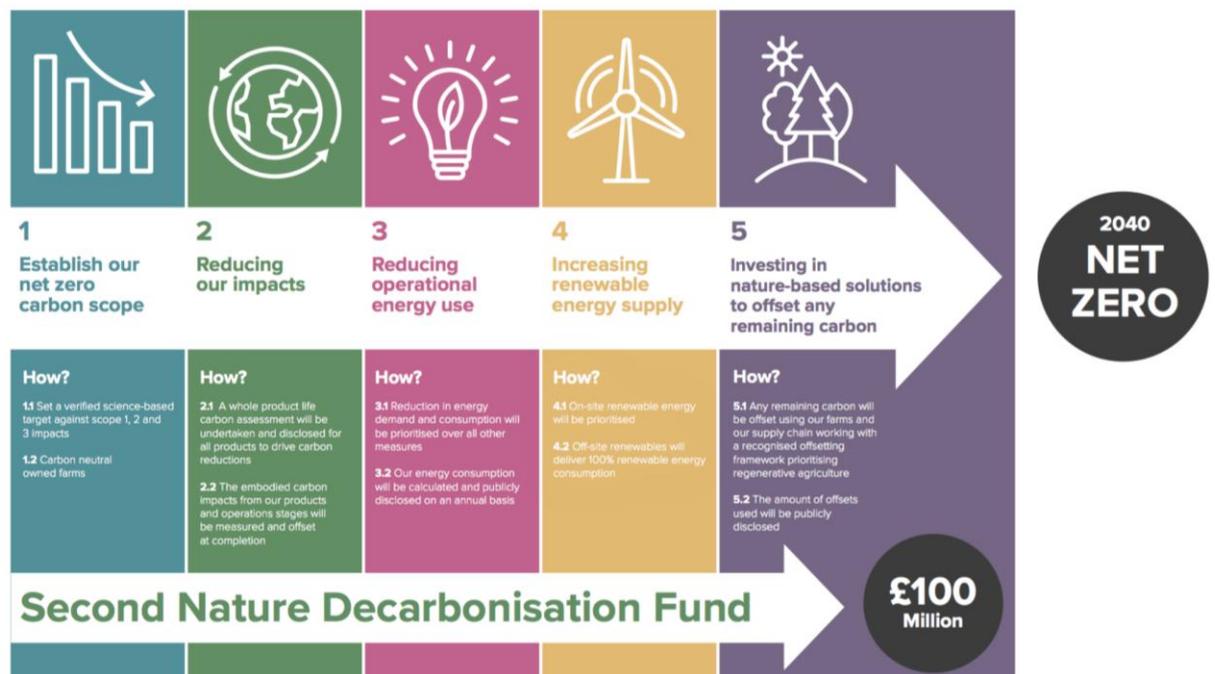
1. To be a carbon neutral site from 2021
2. To report on savings of carbon in all future energy reduction programmes on site
3. To work towards emission reduction activities that assist Group's SBT and Net Zero targets

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 Lazenby's site's carbon reduction journey:



4. Emissions inventory & projections

a. Measurement

At Lazenby's, 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 R404a, R407c and R507a, making up 59% of the site's emissions in 2020-2021.

The data gathered is from a baseline year of 2017 up to the current reporting year of 2021. The data and emissions were split into the financial year for the site from April to March. Therefore, the years of emissions included in the emissions inventory are:

- 2017-18
- 2018-19
- 2019-20
- 2020-21 (ongoing)

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

- a. UK location-based conversion factors for kgCO₂e/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 ₂ e/kWh)
2017	0.35156
2018	0.28307
2019	0.2556
2020	0.23314
2021	0.23314

- b. UK location-based conversion factors for kgCO₂e Natural Gas from 2018:

Year	Natural Gas Carbon Intensity (kgCO ₂ e/kWh)
	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 2018:

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

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: 1483.72 t/CO2e. In the reporting period (2020-2021), natural gas accounted for 321.71 t/CO2e. Mainly used for on-site boilers.

b. **Refrigeration & cooling** is prominent on site. The refrigerants from the fridges are high in Global Warming Potential (GWP). Using a quantitative approach defined by the GHG Protocol Corporate Standard’s F-Gas calculator, the leakages of R407c, R404a and R507a, of which only R407c had top ups in 2020-2021 amounted to 491.75 t/CO2e.

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 7339.29 t/CO₂e from (Jan) 2017 to present. The total for the offsetting period (2020-2021) is 1378.74 t/CO₂e. However, the market-based approach will be used for the specification of PAS 2060 when offsetting emissions.
3. Other: On site red diesel consumption made up 21.37 t/CO₂e for the reporting period (2020-2021). 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)
	3,486.41	7,339.29	10,825.70	6134.40

Baseline year	Scope 1	Scope 2	Total (location-based)	Total (market-based)
	532.90	2,131.64	2,664.54	2,664.54

Offsetting period	Scope 1	Scope 2	Total (location-based)	Total (market-based)
	834.83	1,334.98	2,169.81	834.83

Emissions to be offset	Total
	834.83

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:

1. Invested in REGO backed electricity tariff to neutralise emissions from Scope 2 electricity consumption in 2018 (market-based).
2. Water Reduction Skin Room: To fit timed/metered tap units to shut the water feed off after a measured amount of water has been delivered to fill tote bins of skins. (2020)
3. Voluntary TRIADs: The site will undertake voluntary TRIADS to reduce to the use of electricity in lower productions hours of the site (2020).
4. Sub metering: enabling the site to understand the main energy consuming machinery and equipment on site (2020).
5. Change over to Ammonia: The site is sharing an Ammonia plant to reduce the sites dependency on F-gas refrigeration units. (2021)
6. Reduction of Nitrogen use: Removal of IQF freezer line for new spiral freezer fed by Ammonia Plant. (2021)
7. Line stops: single point shutdown for production lines for breaks and end of production runs. (2020/2021)
8. Reduce non required hot water usage: Delivery points for hot water have been locked off in certain areas to discourage non-essential use of hot water. (2021)

9. Training and briefing of staff: To eliminate the non-required water sweeping of floor contaminates instead of squeegee/brushing. (2021)
10. New equipment: The group and site have an Environment and energy section in its CURs (purchasing documents) which require completion prior to new equipment orders. (2020)
11. Air saving: PLC control of air required for aeration system for sausage skins. (2020)
12. Water Reduction: Quarterly checks for water system leaks form intake to end user. (2021)
13. Air Compressors: Now checked by competent third party for efficiency and optimised usage. (2019)

Along with a gradual decarbonisation of grid electricity, and further site efficiencies, the site reduced its overall emissions by **69% since 2017-2018 (or 1,829.71 t/CO₂e).**

Figure 2. Total site emissions location-based approach (2019-2020)

Scope 1&2 (Location-Based) 2020

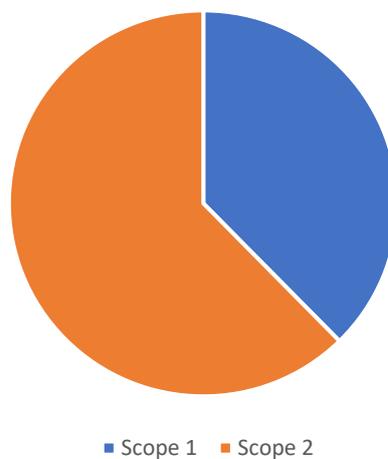


Figure 3. Site reduction against Production (carbon intensity)

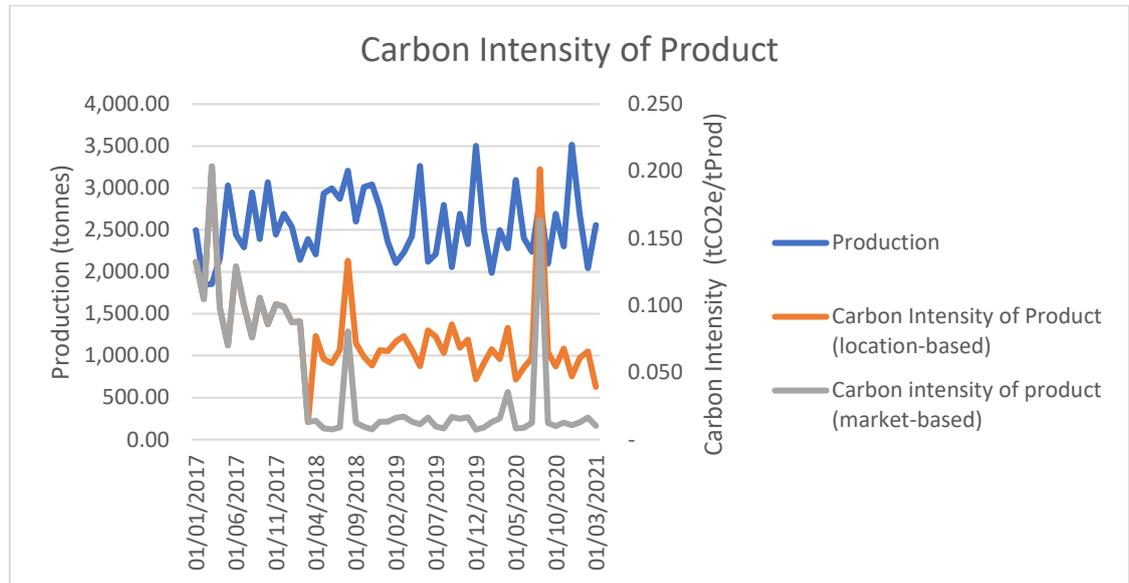
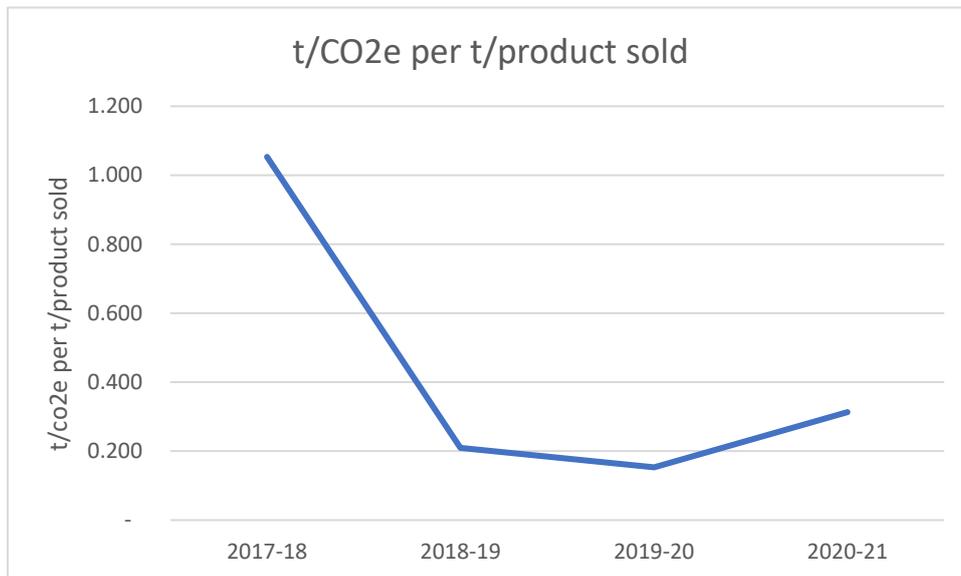


Figure 4. Site reduction in CO₂e per tonne of product sold since 2017-2018



Performance highlights of the site:

- 69% reduction in absolute carbon of Scope 1 & 2 since 2017-2018
- A 70% reduction in emission intensity of product sold since 2017-2018
- An increase of 0.16 t/CO₂e from 2019-20 to 2020-21 was mainly due to the F-Gas leak and subsequent Top-up of R407c.

b. 2021 - Reduction Solutions Outlook

- **CHP:** The site is looking into the benefit of a Combined Heat and Power plant on site which will help in relation to energy efficiency. However, the CHP would require an increase of natural gas consumption which would have an adverse effect due to the REGO tariff already in place.
- **Solar Power:** on-site rooftop solar PV would generate direct electricity for the site's consumption. The site can also feed this electricity into the distribution network, benefitting financially as well as investing actively into renewable electricity, separately from a tariff that is a market-instrument.
- **F-Gas complete replacement:** as the largest part of the site's footprint, to eventually achieve net zero emissions, the site will need to eliminate the remaining F-Gas and look to either replace or retrofit equipment to become compatible with Ammonia or CO2 Grade refrigerants. Leaks from these two compounds cause negligible to no emissions due to their low to insignificant GWP.
- **Red Diesel:** equipment, vehicles, or other machinery using red diesel on site will need to be reviewed and considered for electrification or a substitute biofuel to eliminate emissions.

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 (835 t/CO₂e).

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

1. Project Name	Project Type	Quantity (VCUs)
2. Breathing Space Cookstoves	Community	418
3. Southern Cardamom REDD+	Forestry	417

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:

- India Breathing Space Cookstove Project:
<https://registry.goldstandard.org/credit-blocks/details/175200>
- Southern Cardamom REDD+ Cambodia Project
<https://registry.terra.org/myModule/rpt/myrpt.asp?r=206&h=126997>
- The site is also looking into local community based projects in the UK to further their positive role and impact on climate.