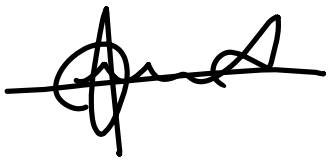
Qualifying Explanatory Statement

Declaration of carbon neutrality

Carbon neutrality of Tetra Pak beverage cartons with plant-based polymers in packaging material and closures carrying the Carbon Trust 'Carbon Neutral Packaging' label achieved by Tetra Pak in accordance with PAS 2060 at January 1st, 2023, with commitment to maintain to December 31st, 2023, Carbon Trust certified.

Signed: Gilles Tisserand, Vice President Climate & Biodiversity, Tetra Pak



Date: 2023-03-07

This Qualifying Explanatory Statement (QES) contains all the required information on the carbon neutrality of Tetra Pak® packages carrying the Carbon Trust 'Carbon Neutral Packaging' label. All the information provided within this report has been reviewed by a third party and is believed to be correct. Should any information be provided which affects the validity of the statements within this document, a revised version of the document will be subsequently issued.

This report is publicly available: https://www.tetrapak.com/sustainability/focus-areas/biodiversity-and-nature/responsible-sourcing/polymers

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Contents

1 Introduction 3
2 General Information 3
3 Boundaries of the Subject 5
4 PAS 2060 Carbon Neutrality Options 6
5 Quantification of the Carbon Footprint 7
5.1 Methodology 7
5.2 Included GHG emissions 7
5.3 Inventory data 7
5.4 Cut off 8
5.5 Data quality and uncertainty assessment of the results 9
5.6 Carbon footprint of the subject 10
6 Carbon Management Plan 12
6.1 Timescale of Carbon Management plan 12
6.2 GHG emission reduction targets during carbon neutrality achievement period 12
6.3 Emissions reduction implementations across our aseptic portfolio 14
6.4 Carbon offset strategy 15
7 References 16
Annex A: QES Checklist – Declaration of Commitment 18
Annex B: QES Checklist – Declaration of Achievement 22
Annex C: Greenhouse gas emissions reduction trajectory 24
Annex D: Carbon Neutrality Certification Letter 32
Annex E: Offset certificates and retirement confirmation 33

1 Introduction

This Qualifying Explanatory Statement (QES) demonstrates that Tetra Pak has achieved carbon neutrality of beverage cartons with plant-based polymers in packaging material and closures, carrying the Carbon Trust 'Carbon Neutral Packaging' label, for the period starting January 1, 2023, and ending December 31, 2023.

Tetra Pak beverage cartons come in various types, formats, sizes and shapes. They are produced from paperboard, polymers and aluminium. In scope for the Carbon Neutrality certification are only those packages, which carry the Carbon Trust "Carbon Neutral Packaging" Label on pack. Eligible for this labelling are only Tetra Pak beverage cartons, where all polymer layers suitable[1] for conversion are replaced by plant-based polymers made from sugarcane. If the packaging has a closure, only packages with closures utilizing plant-based polymers are in scope.

The plant-based polymers are fully traceable to their sugarcane origin. Since March 2020 All Tetra Pak products made from plant-based polymers are delivered to customers as Bonsucro certified[2].

The increased share of plant-based materials reduces the carbon footprint of the package.
As an example, for Tetra Brik® Aseptic Edge 1000ml with plant-based LightCap 30, 20% carbon footprint reduction was achieved by utilizing plant-based polymers, compared to a standard package (based on EU industry average data, "Dataset B"). This reduction comes on top of Tetra Pak´s overall value chain climate impact reduction measures. Based on these measures, the carbon footprint of the aforementioned Tetra Brik® Aseptic Edge 1000ml with plant-based polymers and with plant-based LightCap 30 was reduced by 4% between the latest two yearly re-certified versions of the Carbon Trust certified Tetra Pak internal calculation model.

Carbon neutrality of Tetra Pak® packages in scope has been achieved through:

- Emissions reduction implementations across the Tetra Pak portfolio including the use of plant-based polymers, improved energy utilisation and efficiency, and decarbonising of remaining energy
- Off-setting of residual carbon emissions

The information provided in this document is in line with the requirements outlined in the PAS 2060:2014 'Specification for the demonstration of carbon neutrality'.

The Carbon Trust has verified the carbon neutrality of the packages in scope and the alignment with PAS 2060:2014.

2 General Information

PAS 2060 information requirement	Information as it relates to Tetra Pak
Entity responsible for making the declaration	Tetra Pak
Individual responsible for the evaluation and provision of data necessary for the substantiation of the declaration including that of preparing, substantiating, communicating and maintaining the declaration	Gilles Tisserand, Vice President Climate & Biodiversity, Tetra Pak
Subject of the declaration	Cradle-to-grave Carbon Footprint of selected beverage cartons with plant-based polymers in

[1] The inner plastic layer of the aseptic packaging is made from a polymer currently not available plant-based. These packages therefore contain around 8% regular polymers in the packaging material.

[2] https://www.tetrapak.com/sustainability/planet/responsible-sourcing/polymers

	packaging material and closures, carrying the Carbon Trust 'Carbon Neutral Packaging' label.
Function of the subject	To protect, preserve, handle, transport and present its contents.
Rationale for the selection of the subject	Beverage cartons have a lower climate impact than most alternatives on the markets. The beverage cartons with plant-based polymers in packaging material and closures in scope of this certification have a lower climate impact compared to the same packaging utilizing only regular, fossil-based polymers.
Boundary	Cradle-to-Grave (Lifecycle steps: Raw Material, Converting, Forming & Filling, End-of-Life)
Specify the type of conformity assessment	Independent third-party certification. Certificate available in Annex D.
Baseline date for PAS 2060 programme	First Carbon Neutral certification for Tetra Rex ® beverage cartons started on February 1st, 2020, based on the carbon footprint calculated with version 6 of the Carbon Trust certified Tetra Pak internal calculation model, which was certified on February 28th, 2019. First Carbon Neutral certification for other beverage cartons started on September 1st, 2022, based on the carbon footprint calculated with version 8 of the Carbon Trust certified Tetra Pak internal calculation model, which was certified on January 1st, 2022 (See chapter 4 for illustration of the timeline).

3 Boundaries of the Subject

The calculated carbon footprint includes GHG emissions from the processes taking place in the following life cycle steps (i.e., a 'cradle-to-grave' approach) of Tetra Pak beverage cartons:

- Raw material
  - Raw material production including resource extraction and transports (for example forestry)
- Converting
  - Transport of raw materials to the converting site (for example paperboard)
  - Packaging material (PM) converting (at Tetra Pak factories)
  - Closure converting (at Tetra Pak factories)
  - Film extrusion
  - Strip production
- Forming & Filling
  - Transport of packaging materials to filler
  - Forming and filling at customer site
  - Transport from filler to distribution centre
- End-of-life

The system boundary of the subject is shown in the figure below.

The unit of measurement is carbon footprint per package (g CO_2e per package). The carbon footprint is calculated for specific packages based on their QSV (Quality-Size-Variant) identification and the opening used. The carbon neutral certification and the carbon footprint calculation only look at the package. The packaged good and it´s footprint are out of scope, as Tetra Pak has neither control, no transparency of the carbon footprint of the packaged good. Various beverages, with very different climate impact can be filled in beverage cartons, and typically, the value chain footprint of the beverage is significantly higher, than that of the packaging (e.g. Milk with a footprint between 1.1 and 1.7 kg CO2e/litre, Orange Juice with 0.7 kg CO2e/litre or Dairy Alternatives with 0.3-0.4 kg CO2e/litre according to a recent study (ifeu 2020)). Therefore, including the filled good would drastically reduce comparability and visibility of any reduction efforts Tetra Pak can make within it´s direct value chain.

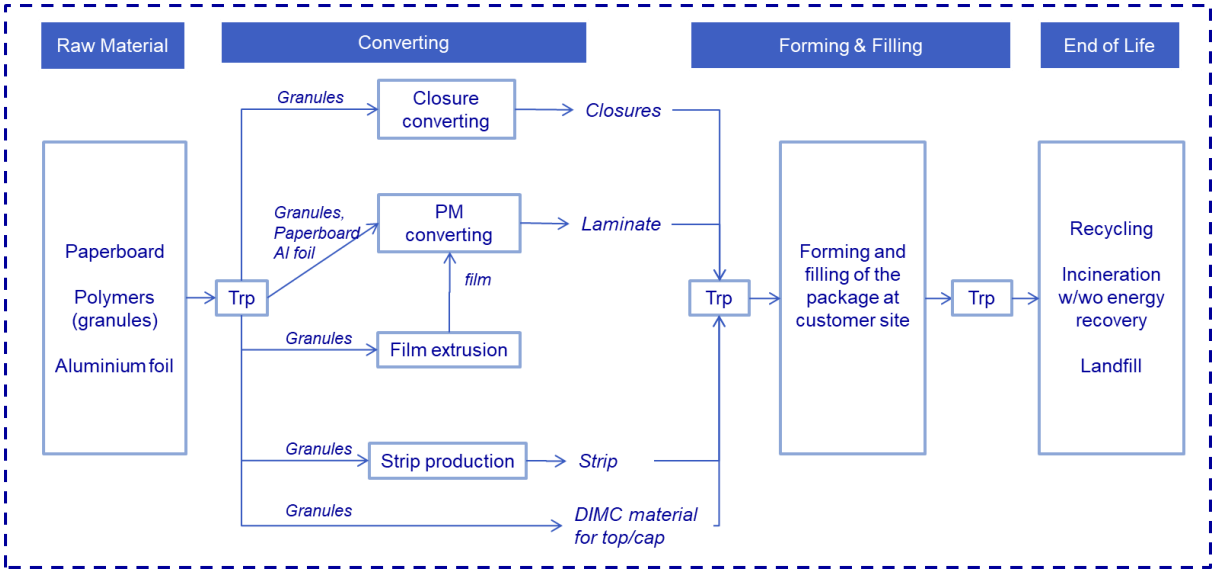


Figure 1: System boundaries and Lifecycle steps for Tetra Pak beverage carton carbon footprint calculation

4 PAS 2060 Carbon Neutrality Options

The entity demonstrates carbon neutrality for the subject as set out in PAS 2060:2014 for Period 4, starting January 1, 2023, and ending December 31, 2023.

A carbon management plan and offset strategy have been developed and these are summarised in Section 6 of this QES.

The baseline refers to when the carbon footprint for the subject was first determined in accordance with PAS 2060

This QES builds on two formerly separate QES, as previously separate Carbon Neutral certifications have been in place for the Tetra Rex® packaging range (Certification Letter CERT:13317) and the Tetra Pak® aseptic packaging range (Certification Letter CERT: 13352). The baseline for Tetra Rex® was February 2019, utilizing version 6 of the Product CO2 Model. For the aseptic range it was January 2022, utilizing version 8 of the Product CO2 Model. Beginning with this document, one shared certification is conducted for all Tetra Pak® beverage cartons utilizing plant-based polymers in packaging material and the closure. For the harmonized certification, it was decided to move to a yearly certification perios (Jan-Dec) instead of the previously used February- January cycle. Therefore, Period 3 was shorter than a year (as a one time exception). For simplification, the declaration of periods will remain in line with the previously established nomenclature from the Tetra Rex® range.

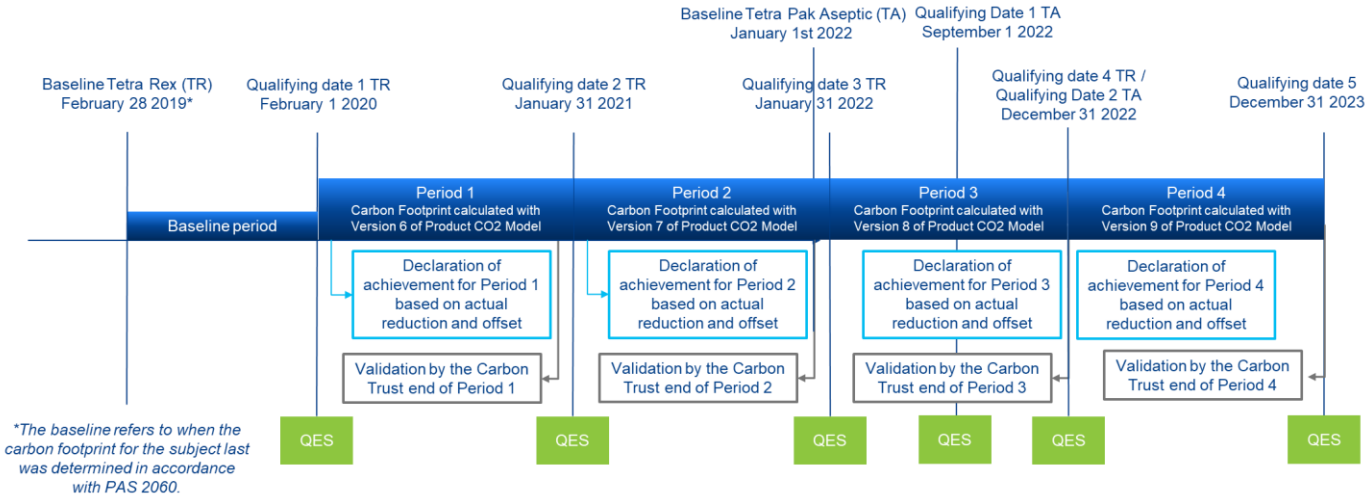


Figure 2: Carbon neutrality declaration period updated

Carbon Trust has assessed carbon neutral compliance at the end of the declaration period 3 to ensure the correct amount of carbon offsets have been sourced. The process will be repeated at the end of declaration period 4.

5 Quantification of the Carbon Footprint

5.1 Methodology

The methodology as outlined in ISO 14040/14044, PAS 2050 and ISO 14067 have been followed for the GHG accounting. The methodology used was applied in accordance with provisions and principles of PAS 2060.
In addition, the guidance in the Product Category Rules (PCR) on beverage cartons (2015) have been followed when considered proper.

These accounting standards were chosen as they represent an internationally recognised approach to the calculation of product carbon footprints. Both PAS 2050 and ISO 14067 are specifically listed in PAS 2060 as 'standards and methodologies that can be presumed to meet the principles in this PAS'.

The Carbon Trust have certified that the carbon footprint of the packages in scope are meeting the requirements of the above-mentioned standards (ISO 14040/14044, PAS 2050 and ISO 14067).

5.2 Included GHG emissions

The calculations are based on Global Warming Potential characterisation factors as published by the Intergovernmental Panel on Climate Change (IPCC) for a time horizon of 100 years.

These include (but are not limited to): carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), sulfur hexafluoride (SF_6), perfluorocarbons (PFCs), and hydrofluorocarbons (HFCs).

All Scope 1, 2 and 3 emissions relevant to the product are included in the carbon footprint.

Also impact of land use change (LUC) is included in the modelling, as in line with ISO 14067 and PAS 2050.

Biogenic carbon
The biogenic carbon embedded in the material (based on the bio-based carbon content of the material) and its release at end of life is included in the modelling but reported separately.

Biogenic carbon is not included in the carbon footprint of the subject.

5.3 Inventory data

The specific material composition of the respective package, defining the amount of paperboard, aluminium and polymers needed, is used for as the basis for the calculation.

Two different datasets for raw materials are deployed and combined with the most appropriate data for other life-cycle steps:

- **Dataset A: Focus on Tetra Pak supplier primary data (Global):** Tetra Pak global average of Tetra Pak supplier primary data for raw materials (Excl. fossil polymers data which is European industry data) – Global average Tetra Pak converting data – Global average transport data – Global average forming and filling data – Global Average end of life situation
- **Dataset B: Focus on publicly available industry data for raw materials (Europe):** EU industry data for raw materials – Global average Tetra Pak converting data – European average transport data – Global average forming and filling fata – European average end of life situation

Within the Carbon Neutral certification, dataset B is used for packaging sold to Tetra Pak customers located in Europe. This dataset was the only one available as of baseline date in 2019 and is continued to be used with the European customers, as the initial Carbon Neutral certification was

limited in scope to Europe. In the meantime, Tetra Pak has obtained more carbon footprint data from suppliers, enabling the use of Dataset B. This dataset is applied to all packages sold to Tetra Pak customers outside Europe as with the Certification beginning in January 2023, the scope of the certification was expanded to all global regions.

The **raw material** inventory data for dataset B is based on latest available industry average data, which is only available from European industry associations (for liquid paperboard, aluminium, and polymers) and thus accompanied by European average data for other lifecycle steps where appropriate. For production of liquid packaging board average data as presented by The Alliance for Beverage Cartons and the Environment (ACE, 2011a) is used in the baseline and until version 8 of the underlying product CO2 model. For the version 9 calculations, an updated dataset was used from the same source (ACE, 2020). For plastics data as presented by Plastics Europe is used (www.plasticseurope.org). Data for production of bio-based PE is sourced from the LCA made available by Braskem (Braskem, 2017). Data for virgin aluminium foil production is sourced from the European Aluminium Association (EAA, 2018). Data for non-bio-based polymers production is sourced from PlasticsEurope (PlasticsEurope 2014).

For dataset A, supplier specific data as collected for the Tetra Pak Scope 3 GHG reporting is used for liquid packaging board and aluminium. The Tetra Pak global average CO_2e emission factors for liquid packaging board and aluminium represent a weighted average of the cradle-to-paperboard mill-gate emissions and the cradle-to-aluminium foil producer-gate emissions. A rolling 3-year average is used in the CO_2e Product model. The data used for polymers is identical to dataset B due to lack of supplier specific data.

For the **converting** operations global average data from Tetra Pak's GHG reporting is used for both datasets, representing the performance in the last full reporting year at the time of each yearly revision of the calculation model. The impact of the transport of raw materials to the converting factory is included in the converting result. For Dataset A, inventory data for the inbound transport of raw materials represents the Tetra Pak global average, as included in the Scope 3 GHG Inventory under Category 4. For Dataset B, the transport distances and means are taken from the PCR (PCR, 2015).

Forming and filling represents Tetra Pak global average impact of the most recent version of the filling machine, relevant for the type and size of the package, in both datasets. Data is sourced from Tetra Pak's GHG reporting. The transport of packaging materials to the filler is included. For Dataset A, it is based on the inventory data for the outbound transport of packaging materials, representing the Tetra Pak global average, as included in the Scope 3 GHG Inventory. For Dataset B, the transport distances and means are taken from the PCR (PCR, 2015).

The **end-of-life** scenario used in dataset B represents the European average situation for cartons, based on ACE statistics[3]. For dataset A, a default global end-of-life scenario is defined based on recycling and end-of-life statistics as reported quarterly by each market. The recycling rate is publicly available on tetrapak.com[4], The 'cut-off' method has been used when modelling end-of-life: the GHG emissions from the recycling process have been allocated to the user of the recycled material and no environmental burdens nor credits have been included in the results for cartons going to recycling or incineration with energy recovery. This is line with the stipulated approach in PAS 2050, the PCR (2015) and Tetra Pak's scope 3 GHG accounting.

The latest available data at the time of the Product Carbon Footprint certification by the Carbon Trust are used.

5.4 Cut off

Life cycle inventory data for a minimum of 99% of total in- and outflows (based on weight) to/from the converting process shall be included (PCR, 2015).

[3] http://www.ace.be/

[4] https://www.tetrapak.com/sustainability/planet/environmental-impact/a-value-chain-approach/sustainability-measuring-and-reporting/envir-performance-data

The following cut-offs have been made:

- Ink for printing and colours in caps has been excluded because of the small amounts (printing inks < 0.5% of a package according to ACE (2011)).
- Waste management of non-recovered waste generated in operations (<0.1% as described in the inventory section).

5.5 Data quality and uncertainty assessment of the results

Inventory data for raw material production is considered to be robust with a low uncertainty. The inventory data has been compared to other references where available, and comparisons to previous versions of the datasets have been made in order to understand the data and any uncertainties.

In addition, the data quality has been assessed int the underlying model, using the data quality requirements from PAS 2050 (2011). Each of the datasets with a material impact on the results have been evaluated against these criteria. Three levels of data quality have been used: 'good' meaning that the data matches the goal and scope of the study; 'medium' meaning that the data is good enough for the goal and scope of the study, but further action is needed to close the gaps. 'Low' data quality can be acceptable if the data set is non-material to the results.

According to the Carbon Trust 'Product Carbon Footprint Protocol, Part 1: Requirements for Certification', the required data quality score for public communication and use of the Carbon Label is to have at least 70% of the cumulative contribution to the final footprint of 'good' data quality, 25% can be of 'medium' quality and 5% of 'low' quality.

The data quality assessment against these criteria shows that the underlying inventory data is in line with the PAS 2050 requirements.

Table 1: Data quality rules and preferences (PAS 2050:2011, Section 7.2)

Data quality rules:	Preferences:
Time related coverage	Data that are time-specific to the product being assessed shall be preferred.
Geographical coverage	Data that are geographically specific to the product being assessed shall be preferred.
Technology coverage	Data that are technology-specific to the product being assessed shall be preferred.
Precision	Data that are more precise (i.e., have the lowest statistical variance) shall be preferred.
Accuracy of the information (PAS 2050) (Uncertainty of the information (ISO))	Data that are most accurate shall be preferred; bias and uncertainty have been reduced as far as practical.

Table 2: Data quality rules that requires documentation (PAS 2050:2011, Section 7.2)

Data quality rules:	
Completeness	The percentage of data that are measured, and the degree to which the data represents the population of interest; is the sample size large enough, is the periodicity of measurement sufficient, etc.
Consistency	Qualitative assessment of whether the selection of data is carried out uniformly in the various components of the analysis.
Reproducibility	Qualitative assessment of the extent to which information about the method and data values would allow an independent practitioner to reproduce the results reported in the study.
Data source	With reference to the primary or secondary nature of the data. Definition of 'Primary data' as in ISO/TS 14067:2013: *'Quantified value*

of a process or an activity obtained from a direct measurement, or a calculation based on direct measurements. Primary data need not necessarily originate from the product system under study because primary data may relate to a different but comparable product system to that being studied.'

5.6 Carbon footprint of the subject

The subject of certification are Tetra Pak beverage cartons with plant-based polymers plant-based polymers in packaging material and closures carrying the Carbon Trust 'Carbon Neutral Packaging' label on request of our customers. The Carbon Footprint of each packaging is individually calculated based on the specification. The full list of packaging sold as Carbon Neutral, including the total calculated carbon footprint as a result of chosen specifications and total sales is provided for audit to a third party (The Carbon Trust) at the end of each period. Table 3 lists the product individual carbon footprint results for all Tetra Pak package variants sold with Carbon Neutral certification in 2022. As only a small volume of aseptic packages has been sold with Carbon Neutral certification in 2022, the table also includes the product individual carbon footprint results for examples of eligible packaging-opening combinations of all major Tetra Pak product families that are available with plant-based polymers. The QSV (Quality Size Variant) is an internal identifier to differentiate between packages of the same package family but with different specifications (e.g., between a package suited for dairy packaging and one suited for juice packaging). All packages shown here have a significantly lower carbon footprint compared to a standard package with only fossil polymers. The results are presented with two value numbers. Roundings have not been made in the underlying calculations. All our customers placing Carbon Neutral certified packaging on the market receive a product carbon footprint report for the specific packaging they utilize.

Table 3: Carbon footprint of eligible packages for Carbon Neutral certification in 2023. Full life cycle scope. Based on latest available data (based on version 8 and 9 of the Tetra Pak internal calculation model). Biogenic carbon uptake and release in the packaging material are not included in the results.

Package	QSV	Opening	Dataset A (Global Tetra Pak Data) Cradle to Grave (g CO2e/package)			Dataset B (Europe Industry Data) Cradle to Grave (g CO2e/package)		
			V8	V9	Reduction V9 vs V8	V8	V9	Reduction V9 vs V8
GT 1000 A Base ST	C015-B46-30	Easy Opening	35	35	0%	20	18	-11%
GT 500 A Base	C015-B44-30	Easy Opening	25	25	0%	15	13	-10%
TBA 1000 Edge	C491-799-76	LightCap™ 30	58	56	-4%	41	39	-4%
TBA 1000 Edge	C491-799-83	LightCap™ 30	58	56	-4%	41	39	-4%
TBA 1000 Edge	C492-799-83	LightCap™ 30	58	56	-4%	41	39	-4%
TBA 1000 Edge	C494-799-76	LightCap™ 30	56	54	-4%	40	38	-4%
TBA 1000 Edge	C493-799-83	LightCap™ 30	56	54	-4%	40	38	-4%
TBA 1000 Edge	C490-799-83	LightCap™ 30	59	57	-4%	42	40	-4%
TBA 1000 Edge	C490-799-83	LightCap™ 30	59	57	-4%	42	40	-4%
TBA 1000 Edge	C491-799-83	LightCap™ 30 Air	58	56	-4%	41	39	-4%
TBA 1000 Edge	C491-799-83	LightCap™ 30 Air	58	56	-4%	41	39	-4%
TBA 1000 Edge	C492-799-83	LightCap™ 30 Air	58	56	-4%	41	39	-4%
TBA 1000 Edge	C493-799-83	LightCap™ 30 Air	56	54	-4%	40	38	-4%
TBA 1000 Edge	C490-799-83	LightCap™ 30 Air	59	57	-4%	42	40	-4%
TBA 1000 Edge	C490-799-83	LightCap™ 30 Air	59	57	-4%	42	40	-4%
TBA 1000 Edge	C491-799-83	LightWing™ 30	58	56	-4%	41	39	-4%

Package	QSV	Opening	Dataset A (Global Tetra Pak Data) Cradle to Grave (g CO2e/package)			Dataset B (Europe Industry Data) Cradle to Grave (g CO2e/package)		
			V8	V9	Reduction V9 vs V8	V8	V9	Reduction V9 vs V8
TBA 1000 Edge	C492-799-83	LightWing™ 30	58	56	-4%	41	39	-4%
TBA 1000 Edge	C493-799-B3	LightWing™ 30	56	54	-4%	40	38	-4%
TBA 1000 Edge	C490-799-83	LightWing™ 30	59	57	-4%	42	40	-4%
TBA 1000 Edge	C490-799-83	LightWing™ 30	59	57	-4%	42	40	-4%
TBA 1000 Edge	C494-799-D3	LightWing™ 30	56	54	-4%	40	38	-4%
TBA 1000 Edge	C491-799-D3	WingCap™ 30	59	56	-4%	41	40	-4%
TBA 1000 Edge	C490-799-D3	WingCap™ 30	60	57	-4%	42	41	-4%
TBA 1000 Edge	C492-799-D3	WingCap™ 30	59	56	-4%	41	40	-4%
TBA 1000 Slim	C496-813-49	HeliCap™ 23	60	57	-5%	43	40	-5%
TBA 1000 Slim	C496-813-49	HeliCap™ 23 Pro	58	56	-5%	41	39	-5%
TBA 1000 Slim	F181-813-49	LightCap™ 24	57	55	-4%	40	39	-5%
TBA 1000 Square	C489-811-B1	HeliCap™ 26 Pro	66	62	-6%	48	46	-5%
TBA 1000 Square	C489-811-B1	HeliCap™ 26 Pro	66	62	-6%	48	46	-5%
TBA 1000 Square	C489-811-B1	HeliCap™ 27	69	65	-6%	51	49	-4%
TBA 1000 Ultra Edge	F181-B25-D3	LightWing™ 30	59	56	-4%	41	40	-4%
TBA 1500 Slim	C525-835-49	HeliCap™ 23	81	77	-4%	57	54	-6%
TBA 1500 Slim	C525-835-49	HeliCap™ 23 Pro	79	76	-5%	55	52	-6%
TGA 1000 Square	C480-811-B1	HeliCap™ 26 Pro	67	63	-6%	48	46	-5%
TGA 1000 Square	C480-811-B1	HeliCap™ 26 Pro	67	63	-6%	48	46	-5%
TGA 1000 Square	C507-811-B1	HeliCap™ 26 Pro	65	61	-6%	47	45	-4%
TGA 1000 Square	C480-811-B1	HeliCap™ 27	70	66	-6%	51	49	-4%
TGA 1500 Square	C497-843-B1	HeliCap™ 26 Pro	89	84	-6%	63	60	-5%
TGA 750 Square	C480-761-B1	HeliCap™ 26 Pro	56	53	-6%	41	39	-4%
TPA 1000 Square	C481-811-B1	HeliCap™ 26 Pro	67	63	-6%	48	46	-5%
TPA 1000 Square	C481-811-B1	HeliCap™ 26 Pro	67	63	-6%	48	46	-5%
TPA 1000 Square	C479-811-B1	HeliCap™ 26 Pro	68	64	-6%	49	46	-5%
TPA 1000 Square	C509-811-B1	HeliCap™ 26 Pro	67	63	-6%	48	46	-5%
TPA 1000 Square	C481-811-B1	HeliCap™ 27	70	66	-5%	51	49	-5%
TPA 1000 Square	C479-811-B1	HeliCap™ 27	71	67	-5%	51	49	-5%
TPA 750 Square	C508-761-B1	HeliCap™ 26 Pro	59	55	-6%	44	41	-6%
TR 1000 Base	B662-810-15	Easy Opening	44	44	0%	28	26	-8%
TR 1000 Base	B748-810-15	Easy Opening	35	35	0%	21	18	-11%
TR 1000 Base	B616-810-75	TwistCap™ OSO 34	37	37	0%	21	19	-11%
TR 1000 Base	B662-810-75	TwistCap™ OSO 34	44	44	0%	28	26	-8%
TR 1000 Base	B717-810-75	TwistCap™ OSO 34	41	41	0%	23	21	-11%
TR 1000 Base	B748-810-75	TwistCap™ OSO 34	36	36	0%	21	19	-11%
TR 1500 Mid	B616-837-91	TwistCap™ OSO 34	58	58	0%	33	29	-12%

Package	QSV	Opening	Dataset A (Global Tetra Pak Data) Cradle to Grave (g CO2e/package)			Dataset B (Europe Industry Data) Cradle to Grave (g CO2e/package)		
			V8	V9	Reduction V9 vs V8	V8	V9	Reduction V9 vs V8
TR 1750 Mid	B616-847-91	TwistCap™ OSO 34	63	63	0%	35	31	-12%
TR 2000 Mid	B616-856-91	TwistCap™ OSO 34	68	68	0%	38	33	-12%
TR 300 Base	B616-580-75	TwistCap™ OSO 34	22	22	0%	13	12	-9%
TR 500 Base	B616-700-75	TwistCap™ OSO 34	22	22	0%	15	14	-10%
TR 500 Base	B662-700-75	TwistCap™ OSO 34	27	27	0%	20	18	-7%
TR 500 Base	B748-700-75	TwistCap™ OSO 34	25	25	0%	15	14	-10%
TSA 1000 Edge	C476-799-B3	LightWing™ 30	60	58	-4%	42	40	-4%
TSA 1000 Edge	C482-799-B3	LightWing™ 30	60	58	-4%	42	40	-4%
TSA 1000 Edge	C482-799-B3	WingCap™ 30	60	58	-3%	42	40	-4%
TT3 1000 Base CB	B871-809-B8	Eifel C38	39	39	0%	25	23	-7%
TT3 1000 Base CB	B863-809-C1	Eifel C38	44	43	0%	29	27	-7%
TB 1000 Base	C256-810-38	Perforation	39	39	0%	24	21	-10%

The impact of the update from version 8 to version 9 (released January 2023) is shown in the table above. As shown in the tables, the package carbon footprint of each package in scope has decreased. The Tetra Rex (TR and GT) packages values only show a minor reduction (below 0.5%) for Dataset A, driven by a slightly improved global end-of-life performance but steady values from our Liquid Paperboard suppliers. The same values in Dataset B, which uses European Industry data for the raw materials, show a stronger reduction, as a new European industry dataset became available in version 9 for LPB, reflecting almost 10 years of improvements in the European LPB industry. The reduction values for the aseptic packages (TBA, TGA, TPA and TSA) are higher in Dataset A, as our continuous work with our Aluminum suppliers – who have contractual targets on reducing their climate impact and are increasingly shifting to renewable energy in their production – has resulted in a significantly lower emission factor for Aluminum in this dataset.

Indicative climate impact reduction trajectories for all these packages can be found in Annex C.

6 Carbon Management Plan

6.1 Timescale of Carbon Management plan

The Carbon Management Plan considers carbon neutrality for the packages in scope during the period January 1, 2023, to December 31, 2023.

6.2 GHG emission reduction targets during carbon neutrality achievement period

Tetra Pak is working on a continuous path towards decarbonising its operations and value chain. In 2011 Tetra Pak set a Climate Goal to cap value chain GHG emissions at 2010 levels through to 2020, despite business growth. This goal has been achieved, exceeding the ambition to cap emissions – in fact, total emissions have been reduced by 19% (2.54mio tonnes CO2e), see Figure 3. Tetra Pak has also been recognised as demonstrating Climate leadership being listed on CDP's Climate A list for the fourth year running (2019-2022).

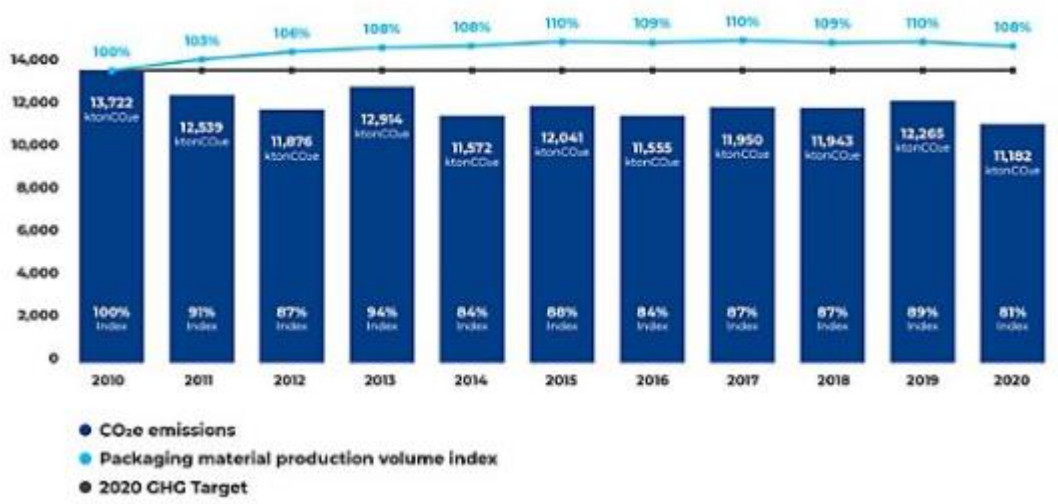


Figure 3 Tetra Pak progress towards achieving the 2020 Climate Goal[5]. GHG emissions across the value chain are shown in the figure.

Tetra Pak´s GHG accounting methodology has been updated with a 2019 baseline. The updated figures from 2019 on are shown in Figure 4:

	2021 inventory year ktonnes CO2e	2019 base year ktonnes CO2e	2021 vs 2019
Tetra Pak operations Scope 1 & 2 & category 6	145	229	-36%
Purchased material & other upstream Category 1 & 3	3980	4535	-12%
Use of sold equipment Category 11	7709	7100	9%
End of life Category 5 & 12	889	909	-2%
Transport Category 4 & 9	696	601	16%
Overall total emissions	**13419**	**13373**	**0%**

Figure 4: Tetra Pak 2019-2021 climate impact summary.

In September 2020 Tetra Pak set a longer-term climate target approved by the Science Based Targets Initiative, which was updated to a Net Zero target in 2022[6]. The new Science Based Target is:

Long-Term targets:

[5] http://tetrapak.com/sustainability/environmental-impact/a-value-chain-approach/sustainability-measuring-and-reporting/envir-performance-data#climate

[6] https://sciencebasedtargets.org/

Tetra Pak commits to reach net-zero greenhouse gas emissions across the value chain by 2050 from a 2019 base year.
Tetra Pak commits to reduce absolute scope 1, 2 and 3 GHG emissions 90% by 2050 from a 2019 base year.
Near-Term target:
Tetra Pak commits to reduce absolute scope 1, 2 and 3 GHG emissions 46% by 2030 from a 2019 base year.
The target boundary includes land related emissions and removals from bioenergy feedstocks.

The value chain near term target from 2019 to 2030 is equivalent to a yearly value chain climate impact reduction of 4.2% of the Baseline 2019 impact. In Annex C, we applied this yearly reduction target to all individual products in scope of this certification.

For Tetra Pak operations electricity consumption is a key focus area representing approximately 75% of all energy use. In 2016 Tetra Pak signed up to the RE100 initiative[7] with a target of reaching 100% renewable electricity across Tetra Pak's global operations by 2030 and 80% by 2020. At the end of 2020 Tetra Pak had reached 83% renewable electricity globally, surpassing the target of 80%.

6.3 Emissions reduction implementations across our aseptic portfolio

Tetra Pak's overarching approach for delivering emission reductions is to:

- Drive GHG emission reductions across our supply chain
- Improve energy utilisation and efficiency
- Decarbonise remaining energy use

Drive GHG emission reductions across our supply chain
Tetra Pak's Science Based Targets require a strong emphasis on working across our value chain to reduce emissions. During 2020 Tetra Pak launched a new supplier sustainability initiative requiring our paperboard, aluminium and polymer suppliers to make sustainability commitments. Out of the 20 actions for 2030 of the initiative, the prioritised action is for our base material suppliers to reduce their greenhouse gas emissions by 50% versus a 2019 baseline. Of particular relevance to our packaging is driving emissions reductions from our paper board suppliers. Between 2021 and 2019 we saw an improvement in the emission intensity from 0.73 to 0.71 tCO2e/t paperboard. The aseptic beverage cartons additionally profit from the emission reduction efforts of our Aluminium suppliers. Here, we saw a recent improvement from 10.9 t to 8.99 t CO2e/t Aluminium. Further reducing the supplier specific emissions for Aluminium remains a key priority throughout 2022 and 2023.
A second lever is the use of low carbon materials, increasing the share of paperboard and plant-based polymers. For e.g., a TBA 1000 Edge LightCap, a 15% (based on Dataset A) to 20% (based on Dataset B) carbon footprint reduction was achieved by the use of plant-based polymers (based on version 8 of the Tetra Pak internal calculation model). For a TR 1000 with TwistCap OSO 34, the reduction ranges between 25% (Dataset A) and 36% (Dataset B)

Improve energy utilisation and efficiency
Further steps to reduce absolute emissions are that Tetra Pak has had an energy efficiency programme in place for over 10 years. Under this programme energy audits are undertaken at Tetra Pak factories to identify emission reduction opportunities. Opportunity identification is followed up by investments to deliver GHG reductions. In conjunction with this Tetra Pak follows the World Class Manufacturing programme, manufacturing sites have energy efficiency KPIs, and they are continuously working to improve efficiency at their sites.

In 2021, we launched the Common Energy Monitoring Platform project to reduce energy demand across our manufacturing sites through proactive energy management. The project will enable further onsite energy optimisation by providing real time data and identifying areas where we can improve energy efficiency.

[7] http://there100.org/

Decarbonise remaining energy

71% of Tetra Pak's operational emissions are linked to electricity. Significant emission reductions can be achieved through switching to renewable electricity. Tetra Pak has a 100% renewable electricity goal in place for the year 2030. At the end of 2021, 80% of electricity sourced by Tetra Pak came from renewable electricity. Tetra Pak follows the GHG protocol Scope 2 Quality Criteria for ensuring credibility of renewable electricity sourcing. Furthermore, our GHG accounting numbers, including renewable electricity sourcing are annually audited by a 3rd party[8].

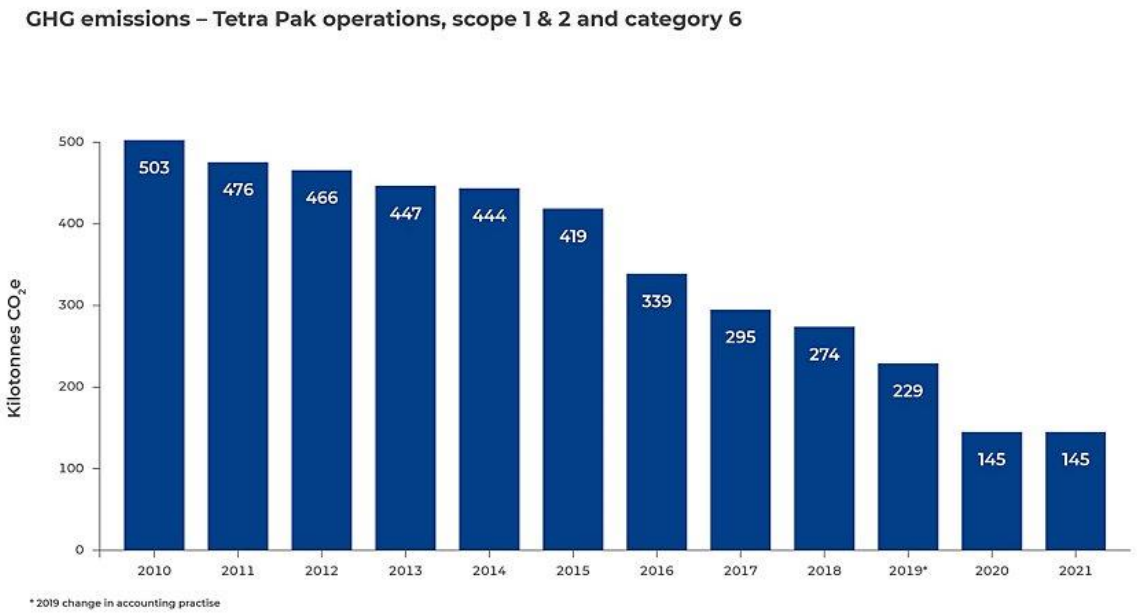


Figure 5: Tetra Pak Operational GHG emissions (Scopes 1 + 2)[9]

As part of the 100% renewable electricity goal, it is being investigated how to maximise the self-production of renewable electricity across our operations. We have recently doubled our solar photovoltaic capacity to 5.55MW. Through to 2030 plans are in place to install further onsite solar thereby leading to further operational CO_2e emission reductions.

As described above through Tetra Pak's energy efficiency and renewable electricity activities a key focus area remains on driving further absolute emission reductions.

6.4 Carbon offset strategy

All Tetra Pak® packages labelled as carbon neutral during the period 3 are supported by carbon offsets. During period 3 (February 2022 to December 2022) the total carbon footprint was 2021 tCO2e, consequently 2021 credits have been used. The offset strategy deployed has been to utilize 1033 outstanding credits from the 1500 credits retired for the Tetra Rex Period 2 and purchase and retire additional 1500 tCO_2e of which 988 credits were utilised in Period 3. A balance of 512 credits is carried forward to Period 4 (January 2023- February 2023). Additional offsets will be purchased through Period 4 following the speed of contracting additional customers to deploy labelled packages. This strategy will ensure we always have carbon offsets secured to allocate to our carbon neutral labelled packages.

[8] https://www.tetrapak.com/content/dam/tetrapak/media-box/global/en/documents/GHG-Inventory-Report.pdf

[9] https://www.tetrapak.com/sustainability/planet/environmental-impact/a-value-chain-approach/sustainability-measuring-and-reporting/envir-performance-data

Throughout the year, the number of packs labelled is tracked based on sales data and the associated carbon emissions and consumed offsets are traced. At the end of each annual qualification period, these values will be independently validated by a third party (Carbon Trust) to ensure that the volumes of offsets purchased match the number of packs labelled across the year.

The carbon offset standard selected is the Gold Standard[10]. All purchased credits were immediately retired and can be traced in the Gold Standard registry to ensure no double counting is happening.

Tetra Pak has chosen to support two Gold Standard certified projects during this qualifying period:

- Nazava Water Filter for Healthy Communities, Indonesia[11]
- Safe Community Water Supply, Gatsibo District Borehole Project, Rwanda[12]

The projects were selected, as on top of achieving verified emission reductions, they create positive social impact in line with the UN Sustainable Development Goals, specifically goal 6 “Clean Water and Sanitation”. For Tetra Pak, our brand promise “protects what´s good” refers to protecting food, people and the planet, and we see these projects supporting all three pillars. As we are operating a global supply chain, emissions occur at various places in the world. A geographical coherence between where compensation projects are carried out and where the emissions occur was thus not possible.

In addition to selecting Gold Standard certified offsets, the Carbon Trust has also reviewed these projects to ensure that they meet PAS 2060 criteria and Carbon Trust’s own requirements for carrying their Carbon Neutral label.

Table 5: Summary of the carbon offsets retired for the qualifying period

Project Type	Country	Techno-logy	Standard & Type of credit	Vintage	Moni-toring Period	Volume (tCO_2e)	Date of retire-ment	Link to registry	Offset Price
Energy Efficiency	Indonesia	Nazava Water Filter Project	Gold Standard VER	2020	19th Dec 2018 – 18th Dec 2020	1500 (467 utilised in Period 2, 1033 utilised in Period 3)	5th May 2022	https://registry.goldstandard.org/credit-blocks/details/267133	Between €10 and €40/tCO2
Energy Efficiency	Rwanda	Safe Community Water Supply, Gatsibo District Borehole Project	Gold Standard VER	2020	6th Feb 2020 – 05th Feb, 2021	1500 (988 utilised in Period 3, 512 carried forward)	20th Dec 2022	https://registry.goldstandard.org/credit-blocks/details/313671	Between €10 and €40/tCO2
Total						**3000 (2021 utilized in this validation period 3)**			

7 References

ACE 2011, LCI dataset for converting of beverage carton packaging material, The Alliance for Beverage Cartons and the Environment (ACE) and IFEU, Sept 2011.

[10] https://www.goldstandard.org/

[11] https://registry.goldstandard.org/projects/details/1597

[12] https://registry.goldstandard.org/projects/details/598

ACE 2011a, LCI dataset for Liquid Packaging Board (LPB), The Alliance for Beverage Cartons and the Environment (ACE).

[ACE 2020] LCI dataset for Liquid Packaging Board (LPB) production, The Alliance for Beverage Cartons and the Environment (ACE) and IFEU, Dec 2020.

Braskem, 2017: I'm green™ PE Life Cycle Assessment. Available on: http://plasticoverde.braskem.com.br/Portal/Principal/Arquivos/Download/Upload/GreenPE-LCASummary2017-CarbonTrust_v.2_230.pdf

[EAA 2018] European Aluminium Association: Environmental Profile Report for the European Aluminium Industry. EAA, Brussels, February 2018. https://www.european-aluminium.eu/resource-hub/environmental-profile-report-2018/

Ifeu, 2020: Ökologischer Fußabdruck von Lebensmitteln und Gerichten in Deutschland, Available on: https://www.ifeu.de/fileadmin/uploads/Reinhardt-Gaertner-Wagner-2020-Oekologische-Fu%C3%9Fabdruecke-von-Lebensmitteln-und-Gerichten-in-Deutschland-ifeu-2020.pdf

PCR, 2015: Product Category Rules, BEVERAGE CARTONS, VERSION 2.0, International EPD® System

PlasticsEurope 2014, Eco-profiles and Environmental Product Declarations of the European Plastics Manufacturers: High-density Polyethylene (HDPE), Low-density Polyethylene (LDPE), Linear Low-density Polyethylene (LLDPE), April 2014

Annex A: QES Checklist – Declaration of Commitment

Table 6 provides a checklist of the required information that should be included in the declaration of commitment to carbon neutrality according to PAS 2060:2014, as well as identification of where the information is located in this QES.

Table 6: Checklist for QES supporting declaration of commitment to carbon neutrality

PAS 2060: QES checklist	Section in this QES
1) Identify the individual responsible for the evaluation and provision of data necessary for the substantiation of the declaration including that of preparing, substantiating, communicating and maintaining the declaration.	2
2) Identify the entity responsible for making the declaration.	2
3) Identify the subject of the declaration.	2
4) Explain the rationale for the selection of the subject. (The selection of the subject should ideally be based on a broader understanding of the entire carbon footprint of the entity so that the carbon footprint of the selected subject can be seen in context; entities need to be able to demonstrate that they are not intentionally excluding their most significant GHG emissions (or alternatively can explain why they have done so)).	2
5) Define the boundaries of the subject.	3
6) Identify all characteristics (purposes, objectives or functionality) inherent to that subject.	2
7) Identify and take into consideration all activities material to the fulfilment, achievement or delivery of the purposes, objectives or functionality of the subject.	3
8) Select which of the 3 options within PAS 2060 you intend to follow.	4
9) Identify the date by which the entity plans to achieve the status of ”carbon neutrality” of the subject and specify the period for which the entity intends to maintain that status.	4
10) Select an appropriate standard and methodology for defining the subject, the GHG emissions associated with that subject and the calculation of the carbon footprint for the defined subject.	5
11) Provide justification for the selection of the methodology chosen. (The methodology employed shall minimize uncertainly and yield accurate, consistent and reproducible results.	5
12) Confirm that the selected methodology was applied in accordance with its provisions and the principles set out in PAS 2060.	5
13) Describe the actual types of GHG emissions, classification of emissions (Scope 1, 2 or 3) and size of carbon footprint of the subject exclusive of any purchases of carbon offsets.	
a) All greenhouse gases shall be included and converted into tCO_2e.	5
b) 100% Scope 1 (direct) emissions relevant to the subject shall be included when determining the carbon footprint.	5
c) 100% Scope 2 (indirect) emissions relevant to the subject shall be included when determining the carbon footprint.	5

d) Where estimates of GHG emissions are used in the quantification of the subject carbon footprint (particularly when associated with scope 3 emissions) these shall be determined in a manner that precludes underestimation.	5
e) Scope 1, 2 or 3 emission sources estimated to be more that 1% of the total carbon footprint shall be taken into consideration unless evidence can be provided to demonstrate that such quantification would not be technically feasible or cost effective. (Emission sources estimated to constitute less than 1% may be excluded on that basis alone.)	5
f) The quantified carbon footprint shall cover at least 95% of the emissions from the subject.	5
g) Where a single source contributes more than 50% of the total emissions, the 95% threshold applies to the remaining sources of emissions.	5
h) Any exclusion and the reason for that exclusion shall be documented.	5
14) Where the subject is an organization/company or part thereof, ensure that:	Not applicable
a) Boundaries are a true and fair representation of the organization's GHG emissions (i.e., shall include all GHG emissions relating to core operations including subsidiaries owned and operated by the organization). It will be important to ensure claims are credible – so if an entity chooses a very narrow subject and excludes its carbon intensive activities or if it outsources its carbon intensive activities, then this needs to be documented.	Not applicable
b) Either the equity share or control approach has been used to define which GHG emissions are included. Under the equity share approach, the entity accounts for GHG emissions from the subject according to its share of equity in the subject. Under the control approach, the entity shall account for 100% of the GHG emissions over which it has financial and/or operational control.	Not applicable
15) Identify if the subject is part of an organization or a specific site or location, and treat as a discrete operation with its own purpose, objectives and functionality.	Not applicable
16) Where the subject is a product or service, include all Scope 3 emissions (as the lifecycle of the product/service needs to be taken into consideration).	5
17) Describe the actual methods used to quantify GHG emissions (e.g., use of primary or secondary data), the measurement unit(s) applied, the period of application and the size of the resulting carbon footprint. (The carbon footprint shall be based as far as possible on primary activity data.) Where quantification is based on calculations (e.g., GHG activity data multiplied by greenhouse gas emission factors or the use of mass balance/lifecycle models) then GHG emissions shall be calculated using emission factors from national (Government) publications. Where such factors are not available, international or industry guidelines shall be used. In all cases the sources of such data shall be identified.	5
18) Provide details of, and explanation for, the exclusion of any Scope 3 emissions.	5
19) Document all assumptions and calculations made in quantifying GHG emissions and in the selection or development of greenhouse gas emission factors. (Emission factors used shall be appropriate to the activity concerned and current at the time of quantification.)	5
20) Document your assessments of uncertainty and variability associated with defining boundaries and quantifying GHG emissions including the	5

positive tolerances adopted in association with emission estimates. (The statement could take the form of a qualitative description regarding the uncertainty of the results, or a quantitative assessment of uncertainty if available (e.g., carbon footprint based on 95% of likely greenhouse gas emissions; primary sources are subject to variation over time; footprint is best estimate based on reasonable costs of evaluation)).	
21) Document Carbon footing management plan:	
a) Make a statement of commitment to carbon neutrality for the defined subject.	Page 1
b) Set timescales for achieving carbon neutrality for the defined subject.	6
c) Specify targets for GHG reduction for the defined subject appropriate to the timescale for achieving carbon neutrality including the baseline date, the first qualification date and the first application period.	6
d) Document the planned means of achieving and maintaining GHG emissions reductions including assumptions made and any justification of the techniques and measures to be employed to reduce GHG emissions.	6
e) Specify the offset strategy including an estimate of the quantity of GHG emissions to be offset, the nature of the offsets and the likely number and type of credits.	6
22) Implement a process for undertaking periodic assessments of performance against the Plan and for implementing corrective action to ensure targets are achieved. The frequency of assessing performance against the Plan should be commensurate with the timescale for achieving carbon neutrality.	6
23) Where the subject is a non-recurring event such as weddings or concert, identify ways of reducing GHG emissions to the maximum extent commensurate with enabling the event to meet its intended objectives before the event takes place and include post event review to determine whether or not the expected minimisation in emissions has been achieved.	Not applicable
24) For any reductions in the GHG emissions from the defined subject delivered in the period immediately prior to the baseline date and not otherwise taken into account in any GHG emissions quantification (historic reductions), confirm:	Not applicable
• the period from which these reductions are to be included;	Not applicable
• that the required data is available and that calculations have been undertaken using the same methodology throughout;	Not applicable
• that assessment of historic reduction has been made in accordance with this PAS, reporting the quantity of historic reductions claimed in parallel with the report of total reduction.	Not applicable
25) Record the number of times that the declaration of commitment has been renewed without declaration of achievement.	Not applicable
26) Specify the type of conformity assessment:	2
a) independent third-party certification;	
b) other party validation;	
c) self-validation.	
27) Include statements of validation where declarations of commitment to carbon neutrality are validated by a third-party certifier or second party organizations.	Annex D
28) Date the QES and have it signed by the senior representative of the entity concerned (e.g., CEO of a corporation; Divisional Director, where	Page 1

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).	
29) Make QES publicly available and provide a reference to any freely accessible information upon which substantiation depends (e.g., via websites).	Page 1
30) Update the QES to reflect changes and actions that could affect the validity of the declaration of commitment to carbon neutrality.	Page 1

Annex B: QES Checklist – Declaration of Achievement

Table provides a checklist of the required information that should be included in the achievement of carbon neutrality according to PAS 2060:2014, as well as identification of where the information is located in this QES.

Table 7: Checklist for QES supporting declaration of achievement of carbon neutrality

PAS 2060 checklist	Section in this QES
1) Define standard and methodology use to determine its GHG emissions reduction.	5
2) Confirm that the methodology used was applied in accordance with its provisions and the principles set out in PAS 2060 were met.	5
3) 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 taken into account).*	5
4) Describe the means by which reductions have been achieved and any applicable assumptions or justifications.	6.3
5) Ensure that there has been no change to the definition of the subject. *(The entity shall ensure that the definition of the subject remains unchanged through each and every stage of the methodology. In the event that material change to the subject occurs, the sequence shall be re-started on the basis of a newly defined subject.)*	2
6) 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 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)).*	6.3
7) State the baseline/qualification date.	4
8) Record the percentage economic growth rate for the given application period used as a threshold for recognising reductions in intensity terms.	Not applicable
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.	Not applicable
10) Select and document the standard and methodology used to achieve carbon offset.	6
11) Confirm that:	6

a) Offsets generated or allowance credits surrendered represent genuine, additional GHG emission reductions elsewhere.	6
b) 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).	6
c) Carbon offsets are verified by an independent third-party verifier.	6
d) Credits from Carbon offset projects are only issued after the emission reduction has taken place.	6
e) Credits from Carbon offset projects are retired within 4 months from the date of the declaration of achievement.	6
f) Provision for event related option of 36 months to be added here.	Not applicable
g) Credits from Carbon offset projects are supported by public ally available project documentation on a registry which shall provide information about the offset project, quantification methodology and validation and verification procedures.	6
h) Credits from Carbon offset projects are stored and retired in an independent and credible registry.	6
12) 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:	6
a) Which GHG emissions have been offset.	6
b) The actual amount of carbon offset.	6
c) The type of credits and projects involved.	6
d) The number and type of carbon credits used and the time period over which the credits have been generated.	6
e) For events, a rationale to support any retirement of credits in excess of 4 months including details of any legacy emission savings, taken into account.	6
f) 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.	6
13) Specify the type of conformity assessment: a) independent third-party certification. b) other party validation. c) self-validation.	2
14) Include statements of validation where declarations of achievement of carbon neutrality are validated by a third-party certifier or second party organizations.	Annex D
15) 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).	Page 1
16) Make QES publicly available and provide a reference to any freely accessible information upon which substantiation depends (e.g., via websites).	Page 1

Annex C: Greenhouse gas emissions reduction trajectory

The below tables show an indicative target trajectory for reducing the carbon footprint of the beverage cartons listed in chapter 5.6. The trajectory includes quantified annual progress targets, covering at least the ten years following the publication of the report as requested by the French Environmental Code.

These indicative trajectories are built by applying our near-term Science Based Target of reducing value chain greenhouse gas emissions by 46% until 2030. To illustrate this target, we model a steady absolute yearly reduction of our value chain greenhouse gas emissions by 4.2% of the 2019 baseline value chain emissions every year, resulting in 46% over the 11-year timeframe 2019-2030. This yearly reduction is listed as a percentage reduction target based on the previous year in the table below. Our commitment to the science-based targets initiative refers to the 2030 target, not the illustrative, linear interim targets.

The Product CO2 Model is always certified at the beginning of the year, using the latest available value chain greenhouse gas emissions data. E.g., version 8, certified in January 2022 is based on the value chain data from 2020. Thus, the reduction trajectory follows two years after the GHG target, starting with the baseline 4.2% for Period 3. The carbon footprint values shown for 2022 and 2023 are based on the respectively latest version of the Product CO2 Model, all upcoming values are calculated based on the percentage reduction target.

Table 8 shows the indicative trajectories based on Dataset A, table 9 based in Dataset B (see chapter 5.3)

Table 8: Carbon footprint reduction target trajectories per product (Dataset A)

Package	Unit	Requirement	2022 (Period 3) – V8 Data	2023 (Period 4) V9 Data	2024 (Period 5)	2025 (Period 6)	2026 (Period 7)	2027 (Period 8)	2028 (Period 9)	2029 (Period 10)	2030 (Period 11)	2031 (Period 12)	2032 (Period 13)
Percentage reduction target (vs. Previous year, = 4.2% vs. 2019 Baseline)			*-4,2%*	*-4,4%*	*-4,6%*	*-4,8%*	*-5,0%*	*-5,3%*	*-5,6%*	*-5,9%*	*-6,3%*	*-6,8%*	*-7,2%*
TSA 1000 Edge LightWing™ 30 (C476-799-B3)	gCO2e / package	Carbon footprint per functional unit	60	58	55	52	50	47	44	42	39	36	34
TBA 1000 Slim LightCap™ 24 (F181-813-49)	gCO2e / package	Carbon footprint per functional unit	57	55	52	50	47	45	42	40	37	35	32
TBA 1000 Ultra Edge LightWing™ 30 (F181-B25-D3)	gCO2e / package	Carbon footprint per functional unit	59	56	54	51	49	46	43	41	38	36	33
TBA 1000 Edge LightCap™ 30 (C491-799-76)	gCO2e / package	Carbon footprint per functional unit	58	56	53	51	48	46	43	41	38	35	33
TBA 1000 Edge LightCap™ 30 (C491-799-83)	gCO2e / package	Carbon footprint per functional unit	58	56	54	51	48	46	43	41	38	36	33
TBA 1000 Edge LightCap™ 30 Air (C491-799-83)	gCO2e / package	Carbon footprint per functional unit	58	56	53	51	48	46	43	41	38	35	33
TBA 1000 Edge LightCap™ 30 Air (C491-799-83)	gCO2e / package	Carbon footprint per functional unit	58	56	53	51	48	46	43	41	38	35	33
TBA 1000 Edge LightCap™ 30 Air (C491-799-83)	gCO2e / package	Carbon footprint per functional unit	58	56	53	51	48	46	43	41	38	35	33
TBA 1000 Edge LightCap™ 30 (C491-799-83)	gCO2e / package	Carbon footprint per functional unit	58	56	54	51	48	46	43	41	38	36	33

Package	Unit	Requirement	2022 (Period 3) – V8 Data	2023 (Period 4) V9 Data	2024 (Period 5)	2025 (Period 6)	2026 (Period 7)	2027 (Period 8)	2028 (Period 9)	2029 (Period 10)	2030 (Period 11)	2031 (Period 12)	2032 (Period 13)
TBA 1000 Edge LightCap™ 30 (C491-799-83)	gCO2e / package	Carbon footprint per functional unit	58	56	54	51	48	46	43	41	38	36	33
TBA 1000 Edge LightWing™ 30 (C491-799-83)	gCO2e / package	Carbon footprint per functional unit	58	56	54	51	48	46	43	41	38	36	33
TBA 1000 Edge WingCap™ 30 (C491-799-D3)	gCO2e / package	Carbon footprint per functional unit	59	56	54	51	49	46	43	41	38	36	33
TBA 1000 Edge WingCap™ 30 (C490-799-D3)	gCO2e / package	Carbon footprint per functional unit	60	57	55	52	50	47	44	42	39	36	34
TBA 1000 Edge LightCap™ 30 (C492-799-83)	gCO2e / package	Carbon footprint per functional unit	58	56	54	51	48	46	43	41	38	36	33
TBA 1000 Edge LightCap™ 30 Air (C492-799-83)	gCO2e / package	Carbon footprint per functional unit	58	56	53	51	48	46	43	41	38	35	33
TBA 1000 Edge LightWing™ 30 (C492-799-83)	gCO2e / package	Carbon footprint per functional unit	58	56	54	51	48	46	43	41	38	36	33
TBA 1000 Edge WingCap™ 30 (C492-799-D3)	gCO2e / package	Carbon footprint per functional unit	59	56	54	51	49	46	43	41	38	36	33
TBA 1000 Edge LightCap™ 30 (C494-799-76)	gCO2e / package	Carbon footprint per functional unit	56	54	51	49	46	44	41	39	37	34	32
TBA 1000 Edge LightCap™ 30 (C493-799-83)	gCO2e / package	Carbon footprint per functional unit	56	54	51	49	46	44	42	39	37	34	32
TBA 1000 Edge LightCap™ 30 Air (C493-799-83)	gCO2e / package	Carbon footprint per functional unit	56	54	51	49	46	44	41	39	37	34	32
TBA 1000 Edge LightWing™ 30 (C493-799-B3)	gCO2e / package	Carbon footprint per functional unit	56	54	51	49	46	44	42	39	37	34	32
TGA 1000 Square HeliCap™ 27 (C480-811-B1)	gCO2e / package	Carbon footprint per functional unit	70	66	63	60	57	54	51	48	45	42	39
TGA 1000 Square HeliCap™ 26 Pro (C480-811-B1)	gCO2e / package	Carbon footprint per functional unit	67	63	60	57	54	51	48	46	43	40	37
TGA 1000 Square HeliCap™ 26 Pro (C480-811-B1)	gCO2e / package	Carbon footprint per functional unit	67	63	60	57	54	51	48	46	43	40	37
TPA 1000 Square HeliCap™ 27 (C481-811-B1)	gCO2e / package	Carbon footprint per functional unit	70	66	63	60	57	54	51	48	45	42	39
TPA 1000 Square HeliCap™ 26 Pro (C481-811-B1)	gCO2e / package	Carbon footprint per functional unit	67	63	61	58	55	52	49	46	43	40	37
TPA 1000 Square HeliCap™ 26 Pro (C481-811-B1)	gCO2e / package	Carbon footprint per functional unit	67	63	61	58	55	52	49	46	43	40	37
TPA 1000 Square HeliCap™ 27 (C479-811-B1)	gCO2e / package	Carbon footprint per functional unit	71	67	64	61	58	55	52	49	45	42	39
TPA 1000 Square HeliCap™ 26 Pro (C479-811-B1)	gCO2e / package	Carbon footprint per functional unit	68	64	61	58	55	52	49	47	44	41	38
TSA 1000 Edge WingCap™ 30 (C482-799-B3)	gCO2e / package	Carbon footprint per functional unit	60	58	55	53	50	47	45	42	39	37	34
TSA 1000 Edge LightWing™ 30 (C482-799-B3)	gCO2e / package	Carbon footprint per functional unit	60	58	55	52	50	47	44	42	39	36	34

Package	Unit	Requirement	2022 (Period 3) – V8 Data	2023 (Period 4) V9 Data	2024 (Period 5)	2025 (Period 6)	2026 (Period 7)	2027 (Period 8)	2028 (Period 9)	2029 (Period 10)	2030 (Period 11)	2031 (Period 12)	2032 (Period 13)
TBA 1000 Square HeliCap™ 27 (C489-811-B1)	gCO2e / package	Carbon footprint per functional unit	69	65	62	59	56	53	50	47	44	41	38
TBA 1000 Square HeliCap™ 26 Pro (C489-811-B1)	gCO2e / package	Carbon footprint per functional unit	66	62	60	57	54	51	48	45	42	40	37
TBA 1000 Square HeliCap™ 26 Pro (C489-811-B1)	gCO2e / package	Carbon footprint per functional unit	66	62	60	57	54	51	48	45	42	40	37
TBA 1000 Edge LightCap™ 30 (C490-799-83)	gCO2e / package	Carbon footprint per functional unit	59	57	54	52	49	47	44	41	39	36	34
TBA 1000 Edge LightCap™ 30 Air (C490-799-83)	gCO2e / package	Carbon footprint per functional unit	59	57	54	52	49	47	44	41	39	36	33
TBA 1000 Edge LightCap™ 30 Air (C490-799-83)	gCO2e / package	Carbon footprint per functional unit	59	57	54	52	49	47	44	41	39	36	33
TBA 1000 Edge LightCap™ 30 (C490-799-83)	gCO2e / package	Carbon footprint per functional unit	59	57	54	52	49	47	44	41	39	36	34
TBA 1000 Edge LightCap™ 30 (C490-799-83)	gCO2e / package	Carbon footprint per functional unit	59	57	54	52	49	47	44	41	39	36	34
TBA 1000 Edge LightWing™ 30 (C490-799-83)	gCO2e / package	Carbon footprint per functional unit	59	57	54	52	49	47	44	41	39	36	34
TBA 1000 Edge LightCap™ 30 Air (C490-799-83)	gCO2e / package	Carbon footprint per functional unit	59	57	54	52	49	47	44	41	39	36	33
TBA 1000 Edge LightWing™ 30 (C490-799-83)	gCO2e / package	Carbon footprint per functional unit	59	57	54	52	49	47	44	41	39	36	34
TBA 1000 Slim HeliCap™ 23 (C496-813-49)	gCO2e / package	Carbon footprint per functional unit	60	57	55	52	49	47	44	41	39	36	34
TBA 1000 Slim HeliCap™ 23 Pro (C496-813-49)	gCO2e / package	Carbon footprint per functional unit	58	56	53	50	48	45	43	40	38	35	33
TGA 750 Square HeliCap™ 26 Pro (C480-761-B1)	gCO2e / package	Carbon footprint per functional unit	56	53	50	48	46	43	41	38	36	33	31
TGA 1000 Square HeliCap™ 26 Pro (C507-811-B1)	gCO2e / package	Carbon footprint per functional unit	65	61	58	55	52	50	47	44	41	38	36
TPA 750 Square HeliCap™ 26 Pro (C508-761-B1)	gCO2e / package	Carbon footprint per functional unit	59	55	53	50	48	45	43	40	38	35	32
TPA 1000 Square HeliCap™ 26 Pro (C509-811-B1)	gCO2e / package	Carbon footprint per functional unit	67	63	61	58	55	52	49	46	43	40	37
TBA 1500 Slim HeliCap™ 23 (C525-835-49)	gCO2e / package	Carbon footprint per functional unit	81	77	74	70	67	63	60	56	53	49	45
TBA 1500 Slim HeliCap™ 23 Pro (C525-835-49)	gCO2e / package	Carbon footprint per functional unit	79	76	72	69	65	62	58	55	51	48	44
TBA 1000 Edge LightWing™ 30 (C494-799-D3)	gCO2e / package	Carbon footprint per functional unit	56	54	51	49	46	44	42	39	37	34	32
TGA 1500 Square HeliCap™ 26 Pro (C497-843-B1)	gCO2e / package	Carbon footprint per functional unit	89	84	80	76	72	68	65	61	57	53	49
TR 300 Base TwistCap™ OSO 34 (B616-580-75)	gCO2e / package	Carbon footprint per functional unit	22	22	21	20	19	18	17	16	15	14	13

Package	Unit	Requirement	2022 (Period 3) – V8 Data	2023 (Period 4) V9 Data	2024 (Period 5)	2025 (Period 6)	2026 (Period 7)	2027 (Period 8)	2028 (Period 9)	2029 (Period 10)	2030 (Period 11)	2031 (Period 12)	2032 (Period 13)
TR 500 Base TwistCap™ OSO 34 (B616-700-75)	gCO2e / package	Carbon footprint per functional unit	22	22	21	20	19	18	17	16	15	14	13
TR 1000 Base TwistCap™ OSO 34 (B616-810-75)	gCO2e / package	Carbon footprint per functional unit	37	37	35	34	32	30	29	27	25	24	22
TR 1500 Mid TwistCap™ OSO 34 (B616-837-91)	gCO2e / package	Carbon footprint per functional unit	58	58	55	53	50	47	45	42	39	37	34
GT 1000 A Base ST Easy Opening (C015-B46-30)	gCO2e / package	Carbon footprint per functional unit	35	35	34	32	30	29	27	25	24	22	21
GT 500 A Base Easy Opening (C015-B44-30)	gCO2e / package	Carbon footprint per functional unit	25	25	24	23	21	20	19	18	17	16	15
TR 1750 Mid TwistCap™ OSO 34 (B616-847-91)	gCO2e / package	Carbon footprint per functional unit	63	63	60	57	54	52	49	46	43	40	37
TR 2000 Mid TwistCap™ OSO 34 (B616-856-91)	gCO2e / package	Carbon footprint per functional unit	68	68	65	62	59	56	53	49	46	43	40
TR 500 Base TwistCap™ OSO 34 (B662-700-75)	gCO2e / package	Carbon footprint per functional unit	27	27	26	25	23	22	21	20	18	17	16
TR 1000 Base Easy Opening (B662-810-15)	gCO2e / package	Carbon footprint per functional unit	44	44	42	40	38	36	34	32	30	28	26
TR 1000 Base TwistCap™ OSO 34 (B662-810-75)	gCO2e / package	Carbon footprint per functional unit	44	44	42	40	38	36	34	32	30	28	26
TR 1000 Base TwistCap™ OSO 34 (B717-810-75)	gCO2e / package	Carbon footprint per functional unit	41	41	39	37	35	33	31	30	28	26	24
TR 500 Base TwistCap™ OSO 34 (B748-700-75)	gCO2e / package	Carbon footprint per functional unit	25	25	24	23	22	20	19	18	17	16	15
TR 1000 Base Easy Opening (B748-810-15)	gCO2e / package	Carbon footprint per functional unit	35	35	34	32	30	29	27	26	24	22	21
TR 1000 Base TwistCap™ OSO 34 (B748-810-75)	gCO2e / package	Carbon footprint per functional unit	36	36	34	33	31	29	28	26	24	23	21
TT3 1000 Base CB Eifel C38 (B871-809-B8)	gCO2e / package	Carbon footprint per functional unit	39	39	37	36	34	32	30	28	27	25	23
TT3 1000 Base CB Eifel C38 (B863-809-C1)	gCO2e / package	Carbon footprint per functional unit	44	43	41	39	37	35	33	31	29	27	25
TB 1000 Base Perforation (C256-810-38)	gCO2e / package	Carbon footprint per functional unit	39	39	37	36	34	32	30	28	27	25	23

Table 9: Carbon footprint reduction target trajectories per product (Dataset A)

Package	Unit	Requirement	2022 (Period 3)	2023 (Period 4)	2024 (Period 5)	2025 (Period 6)	2026 (Period 7)	2027 (Period 8)	2028 (Period 9)	2029 (Period 10)	2030 (Period 11)	2031 (Period 12)	2032 (Period 13)
Percentage reduction target (vs. Previous year, = 4.2% vs. 2019 Baseline)			*-4,2%*	*-4,4%*	*-4,6%*	*-4,8%*	*-5,0%*	*-5,3%*	*-5,6%*	*-5,9%*	*-6,3%*	*-6,8%*	*-7,2%*

Package	Unit	Requirement	2022 (Period 3)	2023 (Period 4)	2024 (Period 5)	2025 (Period 6)	2026 (Period 7)	2027 (Period 8)	2028 (Period 9)	2029 (Period 10)	2030 (Period 11)	2031 (Period 12)	2032 (Period 13)
TSA 1000 Edge LightWing™ 30 (C476-799-B3)	gCO2e / package	Carbon footprint per functional unit	42	40	38	36	35	33	31	29	27	25	24
TBA 1000 Slim LightCap™ 24 (F181-813-49)	gCO2e / package	Carbon footprint per functional unit	40	39	37	35	33	31	30	28	26	24	23
TBA 1000 Ultra Edge LightWing™ 30 (F181-B25-D3)	gCO2e / package	Carbon footprint per functional unit	41	40	38	36	34	32	31	29	27	25	23
TBA 1000 Edge LightCap™ 30 (C491-799-76)	gCO2e / package	Carbon footprint per functional unit	41	39	38	36	34	32	30	29	27	25	23
TBA 1000 Edge LightCap™ 30 (C491-799-83)	gCO2e / package	Carbon footprint per functional unit	41	39	38	36	34	32	30	29	27	25	23
TBA 1000 Edge LightCap™ 30 Air (C491-799-83)	gCO2e / package	Carbon footprint per functional unit	41	39	38	36	34	32	30	29	27	25	23
TBA 1000 Edge LightCap™ 30 Air (C491-799-83)	gCO2e / package	Carbon footprint per functional unit	41	39	38	36	34	32	30	29	27	25	23
TBA 1000 Edge LightCap™ 30 Air (C491-799-83)	gCO2e / package	Carbon footprint per functional unit	41	39	38	36	34	32	30	29	27	25	23
TBA 1000 Edge LightCap™ 30 (C491-799-83)	gCO2e / package	Carbon footprint per functional unit	41	39	38	36	34	32	30	29	27	25	23
TBA 1000 Edge LightCap™ 30 (C491-799-83)	gCO2e / package	Carbon footprint per functional unit	41	39	38	36	34	32	30	29	27	25	23
TBA 1000 Edge LightWing™ 30 (C491-799-83)	gCO2e / package	Carbon footprint per functional unit	41	39	38	36	34	32	30	29	27	25	23
TBA 1000 Edge WingCap™ 30 (C491-799-D3)	gCO2e / package	Carbon footprint per functional unit	41	40	38	36	34	32	31	29	27	25	23
TBA 1000 Edge WingCap™ 30 (C490-799-D3)	gCO2e / package	Carbon footprint per functional unit	42	41	39	37	35	33	31	29	28	26	24
TBA 1000 Edge LightCap™ 30 (C492-799-83)	gCO2e / package	Carbon footprint per functional unit	41	39	38	36	34	32	30	29	27	25	23
TBA 1000 Edge LightCap™ 30 Air (C492-799-83)	gCO2e / package	Carbon footprint per functional unit	41	39	38	36	34	32	30	29	27	25	23
TBA 1000 Edge LightWing™ 30 (C492-799-83)	gCO2e / package	Carbon footprint per functional unit	41	39	38	36	34	32	30	29	27	25	23
TBA 1000 Edge WingCap™ 30 (C492-799-D3)	gCO2e / package	Carbon footprint per functional unit	41	40	38	36	34	32	31	29	27	25	23
TBA 1000 Edge LightCap™ 30 (C494-799-76)	gCO2e / package	Carbon footprint per functional unit	40	38	37	35	33	31	30	28	26	24	23
TBA 1000 Edge LightCap™ 30 (C493-799-83)	gCO2e / package	Carbon footprint per functional unit	40	38	37	35	33	31	30	28	26	24	23
TBA 1000 Edge LightCap™ 30 Air (C493-799-83)	gCO2e / package	Carbon footprint per functional unit	40	38	37	35	33	31	30	28	26	24	23
TBA 1000 Edge LightWing™ 30 (C493-799-B3)	gCO2e / package	Carbon footprint per functional unit	40	38	37	35	33	31	30	28	26	24	23
TGA 1000 Square HeliCap™ 27 (C480-811-B1)	gCO2e / package	Carbon footprint per functional unit	51	49	47	44	42	40	38	35	33	31	29

Package	Unit	Requirement	2022 (Period 3)	2023 (Period 4)	2024 (Period 5)	2025 (Period 6)	2026 (Period 7)	2027 (Period 8)	2028 (Period 9)	2029 (Period 10)	2030 (Period 11)	2031 (Period 12)	2032 (Period 13)
TGA 1000 Square HeliCap™ 26 Pro (C480-811-B1)	gCO2e / package	Carbon footprint per functional unit	48	46	44	42	40	38	36	33	31	29	27
TGA 1000 Square HeliCap™ 26 Pro (C480-811-B1)	gCO2e / package	Carbon footprint per functional unit	48	46	44	42	40	38	36	33	31	29	27
TPA 1000 Square HeliCap™ 27 (C481-811-B1)	gCO2e / package	Carbon footprint per functional unit	51	49	46	44	42	40	37	35	33	31	29
TPA 1000 Square HeliCap™ 26 Pro (C481-811-B1)	gCO2e / package	Carbon footprint per functional unit	48	46	44	42	40	38	35	33	31	29	27
TPA 1000 Square HeliCap™ 26 Pro (C481-811-B1)	gCO2e / package	Carbon footprint per functional unit	48	46	44	42	40	38	35	33	31	29	27
TPA 1000 Square HeliCap™ 27 (C479-811-B1)	gCO2e / package	Carbon footprint per functional unit	51	49	47	44	42	40	38	35	33	31	29
TPA 1000 Square HeliCap™ 26 Pro (C479-811-B1)	gCO2e / package	Carbon footprint per functional unit	49	46	44	42	40	38	36	34	31	29	27
TSA 1000 Edge WingCap™ 30 (C482-799-B3)	gCO2e / package	Carbon footprint per functional unit	42	40	39	37	35	33	31	29	27	26	24
TSA 1000 Edge LightWing™ 30 (C482-799-B3)	gCO2e / package	Carbon footprint per functional unit	42	40	38	36	35	33	31	29	27	25	24
TBA 1000 Square HeliCap™ 27 (C489-811-B1)	gCO2e / package	Carbon footprint per functional unit	51	49	46	44	42	40	37	35	33	31	29
TBA 1000 Square HeliCap™ 26 Pro (C489-811-B1)	gCO2e / package	Carbon footprint per functional unit	48	46	44	42	40	37	35	33	31	29	27
TBA 1000 Square HeliCap™ 26 Pro (C489-811-B1)	gCO2e / package	Carbon footprint per functional unit	48	46	44	42	40	37	35	33	31	29	27
TBA 1000 Edge LightCap™ 30 (C490-799-83)	gCO2e / package	Carbon footprint per functional unit	42	40	38	37	35	33	31	29	27	25	24
TBA 1000 Edge LightCap™ 30 Air (C490-799-83)	gCO2e / package	Carbon footprint per functional unit	42	40	38	37	35	33	31	29	27	25	24
TBA 1000 Edge LightCap™ 30 Air (C490-799-83)	gCO2e / package	Carbon footprint per functional unit	42	40	38	37	35	33	31	29	27	25	24
TBA 1000 Edge LightCap™ 30 (C490-799-83)	gCO2e / package	Carbon footprint per functional unit	42	40	38	37	35	33	31	29	27	25	24
TBA 1000 Edge LightCap™ 30 (C490-799-83)	gCO2e / package	Carbon footprint per functional unit	42	40	38	37	35	33	31	29	27	25	24
TBA 1000 Edge LightWing™ 30 (C490-799-83)	gCO2e / package	Carbon footprint per functional unit	42	40	38	37	35	33	31	29	27	26	24
TBA 1000 Edge LightCap™ 30 Air (C490-799-83)	gCO2e / package	Carbon footprint per functional unit	42	40	38	37	35	33	31	29	27	25	24
TBA 1000 Edge LightWing™ 30 (C490-799-83)	gCO2e / package	Carbon footprint per functional unit	42	40	38	37	35	33	31	29	27	26	24
TBA 1000 Slim HeliCap™ 23 (C496-813-49)	gCO2e / package	Carbon footprint per functional unit	43	40	39	37	35	33	31	29	27	26	24
TBA 1000 Slim HeliCap™ 23 Pro (C496-813-49)	gCO2e / package	Carbon footprint per functional unit	41	39	37	35	33	32	30	28	26	25	23

Package	Unit	Requirement	2022 (Period 3)	2023 (Period 4)	2024 (Period 5)	2025 (Period 6)	2026 (Period 7)	2027 (Period 8)	2028 (Period 9)	2029 (Period 10)	2030 (Period 11)	2031 (Period 12)	2032 (Period 13)
TGA 750 Square HeliCap™ 26 Pro (C480-761-B1)	gCO2e / package	Carbon footprint per functional unit	41	39	37	35	34	32	30	28	26	25	23
TGA 1000 Square HeliCap™ 26 Pro (C507-811-B1)	gCO2e / package	Carbon footprint per functional unit	47	45	43	41	39	37	35	33	31	29	27
TPA 750 Square HeliCap™ 26 Pro (C508-761-B1)	gCO2e / package	Carbon footprint per functional unit	44	41	39	37	35	33	32	30	28	26	24
TPA 1000 Square HeliCap™ 26 Pro (C509-811-B1)	gCO2e / package	Carbon footprint per functional unit	48	46	44	42	40	38	35	33	31	29	27
TBA 1500 Slim HeliCap™ 23 (C525-835-49)	gCO2e / package	Carbon footprint per functional unit	57	54	51	49	46	44	41	39	36	34	31
TBA 1500 Slim HeliCap™ 23 Pro (C525-835-49)	gCO2e / package	Carbon footprint per functional unit	55	52	49	47	45	42	40	38	35	33	30
TBA 1000 Edge LightWing™ 30 (C494-799-D3)	gCO2e / package	Carbon footprint per functional unit	40	38	37	35	33	31	30	28	26	24	23
TGA 1500 Square HeliCap™ 26 Pro (C497-843-B1)	gCO2e / package	Carbon footprint per functional unit	63	60	58	55	52	49	47	44	41	38	35
TR 300 Base TwistCap™ OSO 34 (B616-580-75)	gCO2e / package	Carbon footprint per functional unit	13	12	12	11	10	10	9	9	8	8	7
TR 500 Base TwistCap™ OSO 34 (B616-700-75)	gCO2e / package	Carbon footprint per functional unit	15	14	13	13	12	11	11	10	9	9	8
TR 1000 Base TwistCap™ OSO 34 (B616-810-75)	gCO2e / package	Carbon footprint per functional unit	21	19	18	17	16	16	15	14	13	12	11
TR 1500 Mid TwistCap™ OSO 34 (B616-837-91)	gCO2e / package	Carbon footprint per functional unit	33	29	27	26	25	23	22	21	19	18	17
GT 1000 A Base ST Easy Opening (C015-B46-30)	gCO2e / package	Carbon footprint per functional unit	20	18	17	17	16	15	14	13	12	12	11
GT 500 A Base Easy Opening (C015-B44-30)	gCO2e / package	Carbon footprint per functional unit	15	13	13	12	12	11	10	10	9	8	8
TR 1750 Mid TwistCap™ OSO 34 (B616-847-91)	gCO2e / package	Carbon footprint per functional unit	35	31	29	28	27	25	24	22	21	20	18
TR 2000 Mid TwistCap™ OSO 34 (B616-856-91)	gCO2e / package	Carbon footprint per functional unit	38	33	32	30	29	27	26	24	23	21	19
TR 500 Base TwistCap™ OSO 34 (B662-700-75)	gCO2e / package	Carbon footprint per functional unit	20	18	18	17	16	15	14	13	13	12	11
TR 1000 Base Easy Opening (B662-810-15)	gCO2e / package	Carbon footprint per functional unit	28	26	25	23	22	21	20	19	17	16	15
TR 1000 Base TwistCap™ OSO 34 (B662-810-75)	gCO2e / package	Carbon footprint per functional unit	28	26	25	24	23	21	20	19	18	17	15
TR 1000 Base TwistCap™ OSO 34 (B717-810-75)	gCO2e / package	Carbon footprint per functional unit	23	21	20	19	18	17	16	15	14	13	12
TR 500 Base TwistCap™ OSO 34 (B748-700-75)	gCO2e / package	Carbon footprint per functional unit	15	14	13	12	12	11	10	10	9	9	8
TR 1000 Base Easy Opening (B748-810-15)	gCO2e / package	Carbon footprint per functional unit	21	18	17	17	16	15	14	13	12	12	11

Package	Unit	Requirement	2022 (Period 3)	2023 (Period 4)	2024 (Period 5)	2025 (Period 6)	2026 (Period 7)	2027 (Period 8)	2028 (Period 9)	2029 (Period 10)	2030 (Period 11)	2031 (Period 12)	2032 (Period 13)
TR 1000 Base TwistCap™ OSO 34 (B748-810-75)	gCO2e / package	Carbon footprint per functional unit	21	19	18	17	16	15	14	14	13	12	11
TT3 1000 Base CB Eifel C38 (B871-809-B8)	gCO2e / package	Carbon footprint per functional unit	25	23	22	21	20	19	18	17	16	15	14
TT3 1000 Base CB Eifel C38 (B863-809-C1)	gCO2e / package	Carbon footprint per functional unit	29	27	26	25	23	22	21	20	18	17	16
TB 1000 Base Perforation (C256-810-38)	gCO2e / package	Carbon footprint per functional unit	24	21	21	20	19	18	17	16	15	14	13

Annex D: Carbon Neutrality Certification Letter

CARBON TRUST

Certificate of Achievement

Tetra Pak

has achieved carbon neutrality and is committed to on-going carbon neutrality of the total carbon footprint of its

Beverage Cartons with Plant-based Polymers in Packaging and Closures

Carbon Trust Assurance Limited certifies that Tetra Pak has calculated the carbon footprint representing all Cradle-to-Grave and marketed Globally, in accordance with:

- PAS 2060:2014 – Specification for the demonstration of carbon neutrality

A detailed list of certified results can be found in the associated Certification Letter CERT-13399.

Awarded: 1 January 2023 Valid Until: 31 December 2023

for and on behalf of Carbon Trust Assurance Ltd,

Martin Hockaday,
Head of Assurance

Annex E: Offset certificates and retirement confirmation

south pole

Gold Standard

CERTIFICATE OF CLIMATE PROTECTION

This certificate verifies that

AB Tetra Pak

has compensated

1500 tonnes of greenhouse gas emissions

by investing in South Pole's climate protection project:
Nazava Water Filter Project, Indonesia

Renat Heuberger
CEO, South Pole

Thank you for committing to bold climate action. Your contribution is not only a meaningful step towards mitigating climate change globally, but also changes lives for the better by contributing to the Sustainable Development Goals set out by the UN.

Retirement ID	GS1-1-ID-GS4290-16-2020-21706-10134-11633
Certificate number	C2436EN, 05.2022
Date	05/05/2022

This certificate is issued by South Pole. For more information about our services and more than 700 climate protection projects, please visit: southpole.com/projects.
The CO_2 emissions indicated on the certificate are compensated through investments in the above mentioned carbon offset projects based on international standards.

Climate
Positive Action for Planet + People

We are delighted to confirm the retirement of
1500 Verified Emission Reductions (VERs)
for
South Pole Carbon Asset Management Ltd.
on 05/05/2022

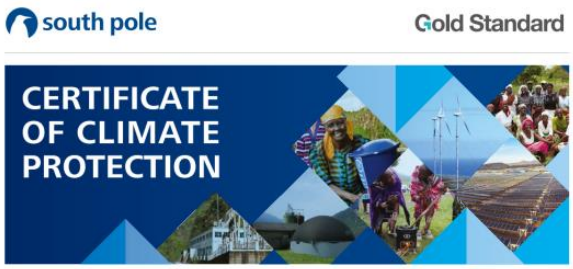
Nazava Water Filter Project
AB Tetra Pak offsetting for their 2021 emissions.

These credits have been retired, saving ***1500*** *tonnes of CO2 emissions from being released into the atmosphere.*
Thank you for investing in a safer climate and more sustainable world.

Gold Standard

Retirement certificates are hosted on the Gold Standard Impact Registry, view your certificate.

Gold Standard | Chemin de Balexert 7-9 1219 Châtelaine, International Environment House 2, Switzerland | goldstandard.org. +41 22 788 70 80, help@goldstandard.org



This certificate verifies that

AB Tetra Pak

has compensated

1500 tonnes of greenhouse gas emissions

by investing in South Pole's climate protection project:
Safe Community Water Supply, Rwanda

Renat Heuberger
CEO, South Pole

Thank you for committing to bold climate action. Your contribution is not only a meaningful step towards mitigating climate change globally, but also changes lives for the better by contributing to the Sustainable Development Goals set out by the UN.

Retirement ID	GS1-1-RW-GS3431-16-2020-23270-1-1500
Certificate number	C2625EN, 12.2022
Date	20/12/2022

This certificate is issued by South Pole. For more information about our services and more than 700 climate protection projects, please visit: southpole.com/projects.
The CO_2 emissions indicated on the certificate are compensated through investments in the above mentioned carbon offset projects based on international standards.

Climate
Positive Action for Planet + People

We are delighted to confirm the retirement of

1500 Verified Emission Reductions (VERs)

for

South Pole Carbon Asset Management Ltd.

on **20/12/2022**

Retirement on behalf of AB Tetra Pak

Project: GS1247 VPA 20 Improved Kitchen Regimes: Gatsibo District Borehole Project, Rwanda

These credits have been retired, saving ***1500*** *tonnes of CO2 emissions from being released into the atmosphere.*
Thank you for investing in a safer climate and more sustainable world.

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