PHILIP MORRIS
INTERNATIONAL

DECLARATION OF CARBON NEUTRALITY

MANUFACTURING ENTITIES CLUSTER1

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0 Carbon Neutrality declaration

The **Qualifying Explanatory Statement** (QES) contains all the required information on the carbon neutrality of the given subject. All information provided within this report has been **reviewed by a third party** (SGS). If provided with any information affecting the validity of the following statements, this document will be updated accordingly to reflect the Manufacturing Entities Cluster 1 (group of affiliates) current status towards carbon neutrality.
This report is publicly available on a dedicated website:

Sustainability resources | PMI

In 2022, due to continuous growth of our community of factories that are joining the carbon neutral declaration process, we decided to cluster factories under the same declaration of commitment and achievement. This Cluster, Manufacturing Entities Cluster 1 will be continued for 2025-emissions year declaration.

This is the fourth declaration of achievement of carbon neutrality for the following list of factories that we will call in this document “Manufacturing Entities Cluster 1”.

List of factories:

Reporting entity	Current Legal Entity
PT (TABAQUEIRA)	Tabaqueira Empresa Industrial de Tabacos S.A.
CH (PMP SA Neuch)	Philip Morris Products SA
LT (Klaipeda)	UAB Philip Morris Lietuva
CZ (Kutna Hora)	Philip Morris CR, a.s.
AR LF (MASSALIN Lrm)	MASSALIN PARTICULARES SRL, Lerma
BR (Santa Cruz)	Philip Morris Brasil Industria e Comercio Ltda.
GR (PAPASTRATOS)	Papastratos Cigarette Manufacturing Company, S.A.
SN (Dakar)	Philip Morris Manufacturing Senegal S.A.R.L.
PK LF (PMPK Mard)	Philip Morris (Pakistan) Limited, Mardan Factory
ID (SAMP Sukorejo)	PT Hanjaya Mandala Sampoerna, Tbk. Sukorejo Plant
ID (PTSIS Sukorejo)	PT Sampoerna Indonesia Sembilan, Sukorejo Pasuruan
ID SKT (Malang SAMPOERNA)	PT Hanjaya Mandala Sampoerna, Tbk. SKT Plant Malang
ID SKT (Rungkut 1 SAMPOERNA)	PT Hanjaya Mandala Sampoerna, Tbk. SKT Plant Rungkut 1
ID SKT (Rungkut 2 SAMPOERNA)	PT Hanjaya Mandala Sampoerna, Tbk. SKT Plant Rungkut 2
ID SKT (Kraksaan SAMPOERNA)	PT Hanjaya Mandala Sampoerna, Tbk. SKT Plant Kraksaan
ID (PTPMI Karawang)	PT Philip Morris Indonesia Karawang International, Karawang
ID (SAMP Karawang)	PT Hanjaya Mandala Sampoerna, Tbk., Karawang Plant
AR (MASSALIN Merlo)	MASSALIN PARTICULARES S.R.L., Merlo
RS (DIN)	Philip Morris Operations a.d. Nis
JO (Amman)	Philip Morris Investments B.V. Jordan
RO (Bucharest)	Philip Morris Romania SRL

Carbon Neutrality of the Scope 1 and Scope 2 emissions under the direct operational control of the factories included in Manufacturing Entities Cluster 1, was achieved by Manufacturing Entities Cluster 1 on **31st December 2025** with a commitment to maintain it from 1st January 2025 until 31st **December 2026.** The achievement of Manufacturing Entities Cluster 1 facilities’ Carbon Neutrality has been verified by SGS United Kingdom Limited.

Verification Criteria:

- Determination of emissions and reductions in accordance with the WRI/WBCSD GHG Protocol, Corporate Accounting and Reporting Standard for the baseline year and sub sequent years.
- Transparent definition of the scope and boundary of activities included within the subject of the Carbon Neutral claim
- Establishment and Implementation of a Carbon footprint management plan targeting emissions reductions by defined actions
- Quantifiable reductions in emissions have been achieved year on year based on actions taken as part of the Carbon footprint management plan
- Carbon Neutral declaration produced that provides sufficient detailed information for the claim, quantification methodology, scope, carbon management plan, reductions and offsets to be fully transparent.
- Offsetting of residual emissions has been undertaken with carbon credits that:
  - Have been verified by an independent third-party verifier
  - Have been retired or cancelled via an independent and credible registry
  - Are only issued after the reduction associated with the project has taken place (ex-post)
  - Represent genuine additional reductions elsewhere
  - Meet the criteria of permanence, leakage, additionality and permanence as defined in the WRI/WBCSD GHG Protocol for project accounting
  - Are supported by publicly available project documentation available on a registry or equivalent that provides details of the offset project, the quantification methodology and the validation and verification procedures.

Verification opinion from SGS can be found in Annex A.

1 Introduction

This document forms the Qualifying Explanatory Statement (QES) to demonstrate that Philip Morris International (PMI) “Manufacturing Entities Cluster 1” group of manufacturing affiliates has achieved carbon neutrality for the below mentioned manufacturing processes for the period starting 1st January 2025 and ending 31st December 2025.

PAS 2060:2014 is no longer available as a certifiable standard as of 2026. While this QES applies the methodological principles of PAS 2060:2014 to ensure consistency, it does not constitute nor claim certification under PAS 2060:2014.

PMI adheres to the methodological principles and requirements of PAS 2060:2014, which was enforced during 2025, although certification under it is no longer possible. In line with our commitment made in 2022 to achieve Carbon Neutrality by 2025, this QES continues to ensure methodological rigor and transparency in how we account for and communicate our carbon-neutrality progress.

The Carbon Neutrality declaration is based on rolling twelve-month data for the 2025 reporting year. Following completion of the reconciliation process, the declaration will be re-issued to reflect the finalized full-year 2025 data.

This has been achieved through:

- Continuous carbon emissions reduction through action plans under PMI direct controls: affiliates and fleet under affiliates' control
- Compensation of remaining carbon emissions for the period commencing 1st January 2025 and ending 31st December 2025.

This report includes the information which substantiates the declaration of PMI Manufacturing Entities Cluster 1 achievement of carbon neutrality for this application period and commitment on carbon neutrality up to 2026.

PMI affiliates grouped in Manufacturing Entities Cluster 1 have also set up a Carbon Management Plan to reduce the GHG emissions associated with the manufacturing processes in order to demonstrate commitment to being carbon neutral.

1.1 General information regarding Carbon Neutrality

Information requirement	**Information as it relates to PMI Manufacturing Entities Cluster 1 affiliates**
Entities in scope of declaration	PMI Factories Manufacturing Entities Cluster 1, including factories as per mentioned table in paragraph 0.
Individual responsible for the evaluation and provision of the data necessary for the substantiation of the declaration (inc. preparing, substantiating, communicating and maintaining the declaration)	Chiara Rizzi
Subject of declaration	Carbon Neutrality of the Scope 1 and 2 emissions under the direct operational control of PMI Manufacturing Entities Cluster 1 Factories (complete list available in Annex B)
Function of subject	Factories and stemmeries manufacturing conventional cigarettes and Smoke Free Products for PMI and its brands.
Activities required for subjects to fulfil its function	The activities required within the manufacturing process are (note that not all the processes listed are present in all the Manufacturing Entities Cluster 1 factories): • Manufacture of Tobacco Related Products; • Flavour & Casing Processing; • Improved Stem Processing; • Cut Filler Processing; • Filter Processing;

	• Machine Cigarette Processing; • Quality Control Laboratory Activities; • Warehousing Activities; • Stemmery Processes; • Print Shop Activities; • Manufacturing of Reduced Risk Products; • Mentholated Inner Liner Processing; • Other Tobacco Products Processing; • Cast Leaf Processing; • Manufacturing of Heated Tobacco sticks; • Manufacture of Hand-Rolled Cigarettes; • Clove Processing; • Reconstituted Tobacco & Clove Processing; • Expanded Tobacco Processing; • Basic Blend Strips Processing;
Rationale for selection of the subjects	PMI's ambition is to be carbon neutral for all of its direct operations (factories, fleet and offices) by 2025. In this journey, all subjects (factories) that have reached substantial emission reduction in the past years qualify to compensate residual emissions and become carbon neutral.
Type of conformity assessment undertaken	I3P-3 Independent third-party certification - unified
Reference date	1st of January 2025
Achievement period	1st of January 2025– 31st of December 2025
Commitment period	1st of January 2026 – 31st of December 2026

Table 1.1 - General information

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1.2 Scope

The **subject** for carbon neutrality is manufacturing entities grouped in the following Manufacturing Entities Cluster 1 or group of entities.

Philip Morris International, Manufacturing entities grouped in Manufacturing Entities Cluster 1:

Reporting entity	Production Type	Current Legal Entity
PT (TABAQUEIRA)	CC	Tabaqueira Empresa Industrial de Tabacos S.A.
CH (PMP SA Neuch)	CC	Philip Morris Products SA
LT (Klaipeda)	CC	UAB Philip Morris Lietuva
CZ (Kutna Hora)	CC	Philip Morris CR, a.s.
AR LF (MASSALIN Lrm)	CC	MASSALIN PARTICULARES SRL, Lerma
BR (Santa Cruz)	CC	Philip Morris Brasil Industria e Comercio Ltda.
GR (PAPASTRATOS)	SFP (RRP)	Papastratos Cigarette Manufacturing Company, S.A.
SN (Dakar)	CC	Philip Morris Manufacturing Senegal S.A.R.L.
PK LF (PMPK Mard)	CC	Philip Morris (Pakistan) Limited, Mardan Factory
ID (SAMP Sukorejo)	CC	PT Hanjaya Mandala Sampoerna, Tbk. Sukorejo Plant
ID (PTSIS Sukorejo)	CC	PT Sampoerna Indonesia Sembilan, Sukorejo Pasuruan
ID SKT (Malang SAMPOERNA)	CC	PT Hanjaya Mandala Sampoerna, Tbk. SKT Plant Malang
ID SKT (Rungkut 1 SAMPOERNA)	CC	PT Hanjaya Mandala Sampoerna, Tbk. -SKT Plant Rungkut 1
ID SKT (Rungkut 2 SAMPOERNA)	CC	PT Hanjaya Mandala Sampoerna, Tbk., SKT Plant Rungkut 2
ID SKT (Kraksaan SAMPOERNA)	CC	PT Hanjaya Mandala Sampoerna, Tbk. SKT Plant Kraksaan
ID (PTPMI Karawang)	CC	PT Philip Morris Indonesia Karawang International, Karawang
ID (SAMP Karawang)	CC	PT Hanjaya Mandala Sampoerna, Tbk., Karawang Plant
AR (MASSALIN Merlo)	CC	MASSALIN PARTICULARES S.R.L., Merlo
RS (DIN)	CC	Philip Morris Operations a.d. Nis
JO (Amman)	CC	Philip Morris Investments B.V. Jordan
RO (Bucharest)	SFP (RRP)	Philip Morris Romania SRL

The main business activity is the manufacturing of conventional cigarettes (CC means conventional cigarettes) and RRP/SFP (Smoke free products) under PMI brands (as reported in Annex B).

In 2022, due to continuous growth of our community of factories that have been joining carbon neutral declaration process, we decided to cluster them under the same declaration of commitment and achievement.

Manufacturing Entities Cluster 1 declaration includes *twenty-one* Manufacturing reporting entities (nineteen reporting entities are mainly defined as Conventional cigarettes sites and two reporting entities are mainly producing SFP/RRP).

During the reporting period, the definition of the subject(s) remained unchanged. In case any material change occurs to the subject(s) in the future, the process of determination and substantiation of the subject(s) and associated GHG emissions shall be re-started on the basis of newly defined subject(s).

1.3 Boundaries of the subject

The system boundaries considered for the organizational carbon footprint of the subject are **all the activities** occurring **within the physical perimeter of the Manufacturing Entities Cluster 1** and **under the affiliates 'control** including:

- The manufacturing plant
- The office(s) and/or warehouse(s) included within the perimeter
- The fleet under the affiliate's control

GHG emissions associated with Manufacturing Entities Cluster 1 of manufacturing affiliates within the defined boundary from the period **of 1st January 2025 to 31st December 2025** have been quantified in accordance with GHG Protocol Corporate Accounting Standard (operational control) and verified by SGS.

The data for this application period has been **verified by an independent third party**, SGS, who verified that the Carbon Neutral Declaration set out in this Declaration QES is appropriately reported in accordance with our criteria in paragraph "0 Carbon Neutrality declaration".

The verification opinion issued by SGS can be found in Annex A.

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2 Quantification of carbon footprint

2.1 **Emissions results** – Rolling 12 Months (R12M) 2025 PMS data (Q1,Q2,Q3 2025 +Q42024)

Reporting entity	RRP P1 Stick Production Volume [Mio Sticks]	Total Production (Mio Cigarettes Equivalent) [Mio Cig]	CO2 Scope 1 Emissions from DIET (GHG emissions) Expanded Tobacco [t GHG]	CO2 Scope 1 Fuels (GHG emissions) - Manufacturing [t GHG]	CO2 Scope 1 Emissions from DIET (GHG emissions) Expanded Tobacco – Certified Biogenic CO2 [t GHG]	Total CO2 (GHG emissions) - Manufacturing - Market based [t GHG]	Total Fugitive Emissions from Replenishment and Estimation [t GHG]	Fleet Vehicles - Total CO2 scope1 (GHG Emissions) [t GHG]	**Total CO2 (GHG emissions)- Market based (including Fugitive& Fleet) [t GHG]**	**Total CO2 (GHG emissions)- Market based (Excluding Fugitive emissions) [t GHG]**
AR (MASSALIN Merlo)	0	16866.49	0	1975.79	0	1975.79	0	44.46	**2,020**	2,020
AR LF (MASSALIN Lrm)	0	43814	0	4213.25	0	4213.25	0	66.3	**4,280**	4,280
BR (Santa Cruz)	0	18035.51	2283.954	1847.14	0	4723.4	592	1.02	**4,724**	4,132
CH (PMP SA Neuch)	1967.91	13584.86	0	830.6	0	830.6	0	0	**831**	831
CZ (Kutna Hora)	0	38863.26	0	2252.99	0	2269.17	16.2	41.38	**2,310.55**	**2,294**
GR (PAPASTRATOS)	29514.01	29514.01	0	11996.87	0	12342.59	345-72	43.28	**12,385.87**	12,040
ID (PTPMI Karawang)	0	19619.76	0	756.69	0	844.42	87.7	1.66	**846**	758
ID (PTSIS Sukorejo)	0	322.5	0	8.94	0	8.94	0	0	**9**	9
ID (SAMP Karawang)	5677.404	28018.01	0	6401.13	0	6657.16	256.03	36.62	**6,694**	6,438
ID (SAMP Sukorejo)	0	40019.56	0	5014.86	2078.946	5169.57	154.71	71.32	**5,241**	5,086
ID SKT (Kraksaan SAMPOERNA)	0	2138.29	0	1.14	0	12.52	11.38	9.72	**22**	11
ID SKT (Malang SAMPOERNA)	0	893.9	0	0.54	0	20.29	19.8	0.23	**21**	1
ID SKT (Rungkut 1 SAMPOERNA)	0	686.68	0	0.22	0	42.49	42.27	33.01	**76**	33
ID SKT (Rungkut 2 SAMPOERNA)	0	2502.6	0	0.44	0	34.680	34.23	11.04	**46**	11
JO (Amman)	0	3,353.18	0	267.45	0	290.54	23.09	7.92	**298.46**	275
LT (Klaipeda)	0	32,585.14	0	137.07	0	175.68	38.61	16.33	**192**	153
PK LF (PMPK Mard)	0	0	0	1213.68	0	1232.47	18.79	214.43	**1,447**	1,428
PT (TABAQUEIRA)	0	48145.77	0	3410.49	0	3480.58	70.09	49.77	**3,530**	3,460
RO (Bucharest)	30864.31	31695.89	0	15690.58	0	15704.24	13.66	42.5	**15,747**	15,733
RS (DIN)	0	59866.07	0	4013.32	0	4035.75	22.43	97.49	**4,133**	4,111
SN (Dakar)	0	4594.5	0	265.46	0	277.39	11.93	26.4	**304**	292
	68,024	**435,120**	**2,284**	**60,299**		**64,341.5**	**1758.9**	**814.9**	**65,156.4**	**63,397.50**

The total GHG emissions in scope 1 and 2 of Philip Morris International Manufacturing Entities Cluster 1 of manufacturing entities during the **Rolling 12 Months (R12M) year 2025** represent a total of **65156 Tons of CO2 equivalent or (63,397.50 excluding Fugitive emission)**.

	R12M 2025 GHG emissions [tCO2eq] Including Fugitive emissions	**R12M 2025 Scope Contribution [%]**
CO2 Scope 1 Fuels (GHG emissions) - Manufacturing [t GHG]	60,299	92.5%
Fugitive Emissions	1,759	2.7%
CO2 Scope1 - Fleet emissions -Vehicles [t GHG]	815	1.3%
CO2 Scope 1 Emissions from DIET (GHG emissions) Expanded Tobacco [t GHG]	2,284	3.5%
Sub Total [tCO_2eq]	**65,156**	**100%**
3% overrate	1,955	
Total GHG emissions with 3% overrate rounded up with decimal	**67,112**	

Table 2.1 – Manufacturing Entities Cluster 1 GHG emissions overall results

Biogenic CO2 for some DIET Expanded Tobacco Process (in Indonesia plant - ID SAMP Sukorejo) were accounted as zero as verified by SGS.

694 tons of CO2eq related to **Natural gas in R12M 2025** are covered by green gas certificates in LT (Klaipeda) plant as verified by SGS.

Renewable electricity in R12M 2025 is covered by renewable energy certificates as verified by SGS.

2.2 Methodology

Total GHG emissions associated with PMI affiliates in Manufacturing Entities Cluster 1, 1st January 2025 to 31st December 2025, have been quantified according to GHG Protocol, Corporate Accounting and Reporting Standard, following the operational control approach. This methodology was chosen as it represents best practice in terms of organization carbon footprint inventory.

The types of greenhouse gases (GHG) included in the Kyoto Protocol to the United Nations Framework Convention on Climate Change need to be reported under the GHG Protocol Corporate Standard and the below listed were covered in the calculations:

- carbon dioxide (CO_2),
- methane (CH_4),
- nitrous oxide (N_2O).

The inventory accounts for 100% of GHG emissions of business activities and operations in which PMI affiliates within Manufacturing Entities Cluster 1 have direct operational control and the full authority to introduce and implement its operating policies.

All Scope 1 and 2 greenhouse gas emissions relevant to the system boundary are included and quantified, in accordance with the GHG Protocol, Corporate Accounting and Reporting Standard, as confirmed by SGS verification.

2.2.1.1 Scope 1

GHG emissions related to Scope 1 come from direct emissions from sources owned or controlled by each of the affiliates within Manufacturing Entities Cluster 1. In PMI context, Scope 1 emissions are:

- Stationary combustion:
  - Natural gas
  - LPG, Propane and Butane
  - Diesel (fuel oil)
  - Heavy fuel oil
  - Petrol
  - Biomass
- Mobile combustion
  - Petrol
  - Diesel
  - Biodiesel
  - Bioethanol
  - Natural Gas (Compressed)

In reporting year 2025, PMI affiliates incorporated fugitive emissions into the GHG inventory. Previously, these emissions were included within the 3% overrate, as they were not reported separately.

This refinement does not alter the established boundaries or scope of the Carbon Neutrality process and further enhances the transparency and accuracy of our reporting. The 3% overrate has not been altered following this addition.

2.2.1.2 Scope 2

GHG emissions related to Scope 2 come from indirect emissions from the generation of purchased electricity, steam, heat and cooling consumed by the affiliates in Manufacturing Entities Cluster 1. In PMI context, scope 2 emissions are:

- Purchased electricity
- District steam
- District heating (inc. cooling)

2.2.1.3 Scope 3

GHG emissions related to Scope 3 refer to all other indirect emissions as a consequence of the activities of affiliates in Manufacturing Entities Cluster 1 that occur from sources not owned or controlled by each of the affiliates within Manufacturing Entities Cluster 1 and are out of scope.

2.3 Data sources

Primary and secondary data has been used for the Carbon Quantification process. Primary data is used where possible, only where primary data was not available, secondary data was used to quantify emissions. For scope 1 and 2, **exclusively primary data was used,** except for the calculation of emissions from fleet where secondary data was used only for UAB Philip Morris Lietuva, Philip Morris CR a.s. and Philip Morris Investments B.V. Jordan. For these three cases the fuel consumption and emissions have been determined by using the PMI available data for Fleet in the respective country. Taking the average fuel consumption per vehicle, this value has been multiplied by the number of vehicles in the factory. The total fuel consumption was then multiplied using DEFRA coefficient to determine the emissions.

1. Primary Data source related to all inputs and outputs corresponding to steps under the affiliates in Manufacturing Entities Cluster 1 control were directly provided. This includes measured energy inputs for production.

2. Emission Factors were sourced from recognized databases (DEFRA and GHG protocol).

Data sources (e.g. invoices) were reviewed by SGS through inventory verification.

Source of data was reviewed by SGS through the GHG Protocol verification process.

2.4 Assumptions and estimations

All assumptions made to quantify the greenhouse gas emission of PMI affiliates in Manufacturing Entities Cluster 1 were reviewed by SGS through the GHG inventory verification process. For Scope 1 and 2, no assumptions were made. For fleet of the three reporting entities mentioned in paragraph 2.3 above, the fuel consumption and emissions have been determined by using the PMI available data for Fleet in the respective country taking the average fuel consumption per vehicle, this value has been multiplied by the number of per vehicles in the factory. The total fuel consumption is then multiplied using DEFRA coefficient to determine the emissions.

2.5 Exclusions

Annex B outlines all the inclusions and exclusions for GHG emissions. In order to ensure the coverage of any potential exclusions within the system boundary an additional 3% has been added to total Carbon Footprint to ensure the Carbon Neutrality program covers 100% of the GHG emissions.

2.6 Uncertainties

Generally, the use of secondary data throughout the assessment represents the main source of uncertainties of results. Actions taken to minimize these uncertainties are described below and were reviewed by SGS.

- Secondary emissions factors: uncertainty associated to the use of secondary emission factors is because they represent averages, rather than specific emissions. However, their use was appropriate, and care has been taken to use the best available datasets (DEFRA and GHG Protocol).
- No other secondary data has been used, except the fleet emission for three entities mentioned in paragraph 2.3 above.

Result of the uncertainty calculation is reported in Annex C.

2.7 Comparison with baseline period results

2025 is the fourth year of reporting and verification for this Manufacturing Entities Cluster 1 (Group of Manufacturing entities/factories as mentioned previously in paragraph 0).

SFP (RRP) products are converted to mio cigarette equivalent volumes using the relative efficiency in the 2022 year baseline period.

GHG emissions in the table are excluding fugitive emissions.

GHG scope	2022 GHG emissions [tCO2eq]	2023 GHG emissions [tCO2eq]	2024 GHG emissions [tCO2eq]	R12M 2025 GHG emissions [tCO2eq]
CO2 Scope 1 Fuels (GHG emissions) - Manufacturing [t GHG]	58018.4	61321.9	58,293	**60299**
CO2 Scope1 - Fleet emissions -Vehicles [t GHG]	855.7	1001.0	922	**815**
CO2 Scope 1 Emissions from DIET (GHG emissions) Expanded Tobacco [t GHG]	1712.9	1268.3	1124	**2,284**
Sub Total [tCO2eq]	**60,587**	**63,591**	**60,339**	**63,399**

	Emission Year 2021	Emission Year 2022		
SFP (RRP) Intensity (CO2 t/mio Cig eq)	0.639	0.688		
CC Intensity	0.129	0.101		
Conversion factors	4.97	**6.85**		

	Year 2021	Year 2022	Year 2023	Year 2024	Year 2025
new Denominator	463,628	590,236	684,777	726,830	**788,060**

	Year 2021	Year 2022	Year 2023	Year 2024	Year 2025
New Intensity per Manufacturing Entities Cluster 1 [CO2 t/ new Denominator]	0.132	0.103	0.093	0.083	0.0804
Intensity reduction		22%	10%	10,6%	**3,1%**

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GHG emissions in the table including fugitive emissions.

GHG scope	2022 GHG emissions [tCO2eq]	2023 GHG emissions [tCO2eq]	2024 GHG emissions [tCO2eq]	R12M 2025 GHG emissions [tCO2eq]
CO2 Scope 1 Fuels (GHG emissions) - Manufacturing [t GHG]	58018.4	61321.9	58,293	60299
CO2 Scope1 - Fleet emissions -Vehicles [t GHG]	855.7	1001.0	922	815
CO2 Scope 1 Emissions from DIET (GHG emissions) Expanded Tobacco [t GHG]	1712.9	1268.3	1124	2,284
Sub Total [tCO2eq]	**60,587**	**63,591**	**60,339**	**63,399**
Fugitive Emissions				**1,759**
Sub Total [tCO2eq] Including fugitive emissions				**65,156**

	Emission Year 2021	Emission Year 2022			
SFP (RRP) Intensity (CO2 t/mio Cig eq)	0.639	0.688			
CC Intensity	0.129	0.101			
Conversion factors	**4.97**	**6.85**			
	Year 2021	**Year 2022**	**Year 2023**	**Year 2024**	**Year 2025**
new Denominator	463,628	590,236	684,777	726,830	788,060
	Year 2021	**Year 2022**	**Year 2023**	**Year 2024**	**Year 2025 R12M including fugitive emissions**
New Intensity per Manufacturing Entities Cluster 1 [CO2 t/ new Denominator]	0.132	0.103	0.093	0.0830	0.0827
Intensity reduction		**-22%**	**-10%**	**-10.6%**	**-0.4%**

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3 Carbon Management Plan

The carbon reduction management plan considers a year period with the aim of reducing emissions and energy intensity. Performance against the target will be monitored annually to review whether anticipated reductions have been achieved.
In order to achieve the targeted reductions a series of projects will be implemented.
Although PMI affiliates began their Carbon Management Program for Carbon Neutrality in 2020, energy saving measures have been implemented since 2010 within the production plants. In 2022, due to continuous growth of our community of factories that are joining the carbon neutral declaration process, we decided to cluster them under the same declaration.
The following paragraphs explain in detail implemented (paragraph 3.2) and planned (paragraph 3.3) projects, that are mainly related to production plant GHG emissions reductions.

3.1 PMI best practice

In 2025, all reporting entities sourced 100% of their electricity from renewable sources, with the exception of Russia and Ukraine. Since 2017, we have gradually increased the uptake of green electricity (as shown in below table). By investing in electricity generated by renewable sources. PMI overall avoided emissions of **over 2,5 million ton of CO_2 equivalent.**

Indicator	2017	2018	2019	2020	2021	2022	2023	2024	2025 (R12M)	*Total Value*
CO2 Scope 2 (GHG emissions) - Manufacturing - Market based [t GHG]	*217,563*	*149,757*	*111,508*	*65,289*	*41,157*	*27,909*	*16,186*	*30,495*	*30,276*	*690,139*
CO2 Scope 2 (GHG emissions) - Manufacturing - Location based [t GHG]	*414,126*	*395,371*	*398,332*	*357,670*	*336,964*	*333,553*	*346,113*	*352,073*	*345,952*	*3,280,154*
Cumulative difference between Location based and Market based [t GHG]	*196,563*	245,615	286,824	292,382	295,807	305,644	329,927	321,579	315,676	*2,590,016*

Table 3.1 - Green electricity increase

3.2 Implemented GHG emissions reduction project repository

At PMI, emissions reduction project governance and budget approval come from two distinct streams: one driven by central functions and another by local teams.

Table 3.2 shows projects implemented in Manufacturing Entities Cluster 1 in the last years, evaluated in 2025 Carbon Footprint assessment. For the ease of reference, the projects have been split by entity:

Table 3.2 - Implemented GHG emissions reduction projects.

Philip Morris Products SA - Neuchatel

Project name	Description	Year	Type of energy used	Emission reduction [kg CO_2eq]
Primary insulation improvement	Insulate remaining steam pipes and valves to reduce heat losses	2023	Gas	8710
Project One	Install meters on each production line and implement a reporting tool to follow-up and reduce overconsumption at the production side	2024	Gas	22000
AI HVAC (Artificial Intelligence Heating Ventilation Air Conditioning) Phase 2	Optimize gas consumption used for ensuring humidity in production are using Artificial Intelligence tools.	2024	Gas	25000
Venturi Steam Traps	Remove hydrostatic steam traps and install venturi steam traps to decrease steam losses	2025	Gas	633000

UAB Philip Morris Lietuva

Project name	Description	Year	Type of energy used	Emission reduction [kg CO_2eq]
Thermal Insulation	Additional installation on boilers, steam and condensate supply lines in production and technical areas. (OPP-024774)	2024	Fuel	47 764
Chilled Water Optimizer	Cloud base central plant control software for cooling system automation optimization (OPP-021539).	2024	Electricity	47 282 (Avoided)
LED Lights	Light replacement to LED in Primary & Secondary infeed zones (OPP-100567)	2024	Electricity	7 881 (Avoided)
Motor Refurbishment	Motor replacement to higher efficiency in cooling system – roof dry-coolers (OPP-100559).	2024	Electricity	43 736 (Avoided)

Project name	Description	Year	Type of energy used	Emission reduction [kg CO_2eq]
Solar Power Plant	Installation of solar park with capacity of 1.85MW (OPP-025412).	2025	Electricity	120045 (Avoided)
Passive Coolers	Replace freezers with air heat exchanges for Focke electrical cooling boxes (OPP-021425).	2024	Electricity	4 526 (Avoided)
Parallel Pumps	Cooling system optimization: parallel pump controller to synchronize central pump work (OPP-025372).	2023/2024	Electricity	3 076 (Avoided)
Smart Cooling Valves	Installation of Belimo energy valves (OPP-025371).	2024	Electricity	1 509 (Avoided)
AI HVAC	Phase 2 of the Artificial intelligence project for Air handling Units. The system upgrade brough enhanced machine learning algorithms which reduced additional consumption.	2024/2025	Electricity	15 166 (Avoided)
AI HVAC	Phase 2 of the Artificial intelligence project for Air handling Units. The system upgrade brough enhanced machine learning algorithms which reduced additional consumption.	2024/2025	Fuel	34 241
Project One	Initiative to reduce energy consumption in production by installing metering on production machinery, establishing daily monitoring systems, and encouraging technical personnel to generate energy reduction initiatives in their daily work-related activities (OPP-100198).	2025	Electricity	158017 (Avoided)
Timer/presence sensors	Refurbishment of timer/presence sensors for offices heating & cooling, with addition of sleeping mode functionality in administrative offices.	2025	Fuel	2553

Philip Morris CR a.s.

Project name	Description	Year	Type of energy used	Emission reduction [kg CO2eq]
Energy Saving Initiatives: Project ONE - Individual Compressed Air metering per secondary machines	Installation of individual compressed air consumption meters per linkup. Evaluation of individual KPIs and follow up actions.	2024 - 2025	Electricity	Green electricity (CO2 equivalent of 352 MWh electricity/12 months)
Energy Saving Initiatives: Steam system equipment upgrade - Insulation of return condensate lines	Insulation of steam equipment	2023-2025	Fuel	24775

Project name	Description	Year	Type of energy used	Emission reduction [kg CO2eq]
Energy Saving Initiatives: Steam system equipment upgrade - VSD controlled boiler feed water pumps	VSD controlled boiler feed water pumps improve boiler economizers efficiency	2024-2025	Fuel	19000
ES07.02 Heat Recovery in Vacuum System	Installation of heat exchanger for heat recovery from vacuum pumps.	2024 - 2025	Fuel	20000
ES07.01 Heat Recovery in CA System (dryers)	Installation of heat pumps for heat recovery from compressed air dryers.	2024-2025	Fuel	24000
LPG forklifts replacement	Replacing of LPG forklifts to electrical ones – green electricity.	2025	LPG	24900

Tabaqueira - Empresa Industrial de Tabaco, S.A. (Tabaqueira EIT, S.A.)

Project name	Description	Year	Type of energy used	Emission reduction [kg CO_2eq]
Adiabatic humidification	Efficient control of temperature and humidity in all production areas through the direct injection of humidity into space instead of steam in the ducts.	2024/2025	Gas	360000
Solar thermal system - Changing rooms	Replacement of conventional NG (Natural Gas) boiler to heat water for showering by renewable solar thermal heating system	2025	Gas	15600
Venturi steam traps	Replacement of normal steam traps by Venturi technology to reduce the steam leakages to atmosphere	2023/2025	Gas	284809
FTD heat recovery	Implementation of a heat exchanger on exhaust gas from Flash Tower Dryer to reduce gas consumption	2023/2025	Gas	25505
Energy Efficiency Plan 2023 - 2030	Implementation of approximately 20 energy saving projects	2025	Gas/ Electricity	288700

Massalin Particulares S.R.L., Salta, Argentina

Project name	Description	Year	Type of energy used	Emission reduction [kg CO_2eq]
Steam Pipe Insulation	Installation of 50 meters of 2" steam pipe insulation to avoid leakages.	2023	Gas	1372
Motor Replacement	Purchase and installation of more energy efficient motors.	2024/2025	Electricity	131164

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Project name	Description	Year	Type of energy used	Emission reduction [kg CO_2eq]
Optimization of administrative spaces	Optimization of administrative spaces	2024/2025	Electricity	1524
Baseload assessment and reduction - internal energy audits	Audits and daily control of KPIs via boards and PROXIMA	2024/2025	Electricity	2931
Baseload assessment and reduction – Primary, Secondary and Print Shop energy centerlines	Audits and daily control of KPIs via boards and PROXIMA	2024/2025	Electricity	7480
Baseload assessment and reduction - GEMT level 4 - Secondary Link-Up and Primary Process	Audits and daily control of KPIs via boards and PROXIMA	2024/2025	Electricity	7285
Adiabatic Humidification	Project to Energy consumption reduction	2024/2025	Electricity	6000
Shutdown CAEs ADM das 11h-14h	Shutdown of air conditioning in administrative areas at certain times	2024/2025	Electricity	17349
Print Shop	Centerline reduction of print drying station from PrintShop	2025	Fuel	6000
Baseload Reduction (Trafo Removal-Print Shop)	Removal trafo 750KVA	2025	Electricity	7830
Lighting Print Shop and Logistics	Lighting Print Shop and Logistics	2024/2025	Electricity	6879

Project name	Description	Year	Type of energy used	Emission reduction [kg CO_2eq]
Upgrade CAG Trane / Chiller Optimizer	Upgrade electronic	2025	Electricity	7546
AHU Flowrate optimization EC Fans (Secondary and Print Shop)	Flowrate optimization gaining in Thermal load	2025	Electricity	732
Solar Thermal Renewable (Boilers)	Steam Reduction consumption	2025	Steam	5090

Papastratos Cigarette Manufacturing Company, S.A.

Project name	Description	Year	Type of energy used	Emission reduction [kg CO_2eq]
Installation of GEMT meters	Installation of energy meters Level 4	2025	Gas	31000
Venturi steam traps	Reduce steam loss from regular steam traps.	2025	Gas	165000
PV Installation on Roofs	Photovoltaic (PV) panels have been installed across the factory's rooftops	2025	Electricity	881141

Philip Morris Manufacturing Senegal S.A.R.L.

Project name	Description	Year	Type of energy used	Emission reduction [kg CO_2eq]
IREC Renewable Electricity	Purchase IREC Certificates Green Electricity	2025	Electricity	Green Electricity
Adiabatic system installation		2025	Diesel	896795
Energy Saving Initiative	HVAC Overhaul	2025	Electricity	819409

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Green Leaf Threshing Plant, Philip Morris (Pakistan) Limited, Mardan Pakistan

Project name	Description	Year	Type of energy used	Emission reduction [kg CO_2eq]
Project Line Optimization, 1st Phase	- 1st Phase executed, 1st two CF changed and during processing season single line usage. - Dust Recovery Fan main ducting is redesigned to make system energy efficient and reduce CO2 emissions	2014/2025	Diesel Oil	136554
Project Line Optimization, 2nd Phase	Complete Line upgraded, through put (TP) increased from 10Tons Per Hr to 14.7 Tons per Hr;	2015/2025	Diesel Oil	4264319
Energy Conservation	Replaced Pneumatic Transport with Manual Band Conveyor Energy Saving of 34KW Per Hr + Lighting system at Warehouses inside GLT upgraded	2017/2025	Diesel Oil	813882
Automation of Steam Control Valve at Stem re-dryer	Automation of Steam Control Valve at Stem re-dryer & Improvement to recover condensate heat, Pipe network improved	2020/2025	HFO & LPG	483777
LPG Boiler Fuel Conversion Project	LPG Boiler Fuel Conversion Project, Fuel of Boiler changed from HFO to LPG	2021/2025	LPG	747435
LPG Energy Saving-Loss Analysis	Condensate Line Optimization, Insulation of Steam Line, Oxygen Analyzer	2022/2025	LPG	63326
Electricity Supply & Load Management during low throughput processing	Power shifting to local grid, Line load reduction, Stem packing in one shift only	2022/2025	Electricity & Diesel Oil	158260
LPG Conservation Initiative	Conversion of Boiler #1 on LPG – for low throughput grades and installation of water heating jacket on boiler	2023/2025	LPG	176402 +96127
LPG Conservation Initiative	Condensate recovery Improvements -Increase Storage Capacity of Feed Water Condensate Tank	2023/2025	LPG	24696
LPG Conservation Initiative	Insulation Steam Energy Line -Insulation of Steam control valves & condensate line and tank	2023/2025	LPG	40202
LPG Conservation Initiative	Seat regeneration Steam Valves -Seat regeneration/repair of all steam control valves	2023/2025	LPG	40202
O2 Analyzer	Installation of O2 sensor on Boiler # 2 to reduce fuel consumption	2025	LPG	30

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PT. HM Sampoerna & PT. Sampoerna Indonesia Sembilan, Sukorejo Plant, Indonesia

Project name	Description	Year	Type of energy used	Emission reduction [kg CO_2eq]
Wireless Steam Trap Monitoring System	Install steam trap monitoring system to reduce loss in steam usage	2024/2025	Gas	154093
VFD on every pump above 5 kW	optimized pump based On Best Efficiency Point of Pump	2024/2025	Electricity	113825
VFD on every fan above 5 kW	Install VSD to optimize electricity usage in pump	2024/2025	Electricity	223950
Dust Collector CL SKM1-2	Create Center Line for Dust Collector based on number of LU's Running	2024/2025	Electricity	101667
Baseload assessment and reduction - GEMT level 4 - Secondary Link Up (SKJ)	Install metering in every linkup to optimized energy usage	2024/2025	Electricity	232116
HVAC AI Phase 2 - HMS Sukorejo	HVAC AI Phase to (Static logic to reinforcement Logic)	2024/2025	Electricity	102479
Wireless Steam Trap Monitoring System	Install steam trap monitoring system to reduce loss in steam usage	2024/2025	Gas	154093
VFD on every pump above 5 kW	optimized pump based On Best Efficiency Point of Pump	2024/2025	Electricity	113825

PT. HM Sampoerna - Sigaret Kretek Tangan (SKT) Malang

Project name	Description	Year	Type of energy used	Emission reduction [kg CO_2 eq]
Green electricity	Green electricity purchasing	2025	Electricity	62115.00
Solar Panel	Implementing renewable energy by using sunlight as a source of energy	2025	Renewable Energy	154795.13

PT. HM Sampoerna - Sigaret Kretek Tangan (SKT) Rungkut-1

Project name	Description	Year	Type of energy used	Emission reduction [kg CO_2 eq]
Green electricity	Green electricity purchasing	2025	Electricity	32572.50
Solar Panel	Implementing renewable energy by using sunlight as a source of energy (capacity 190 Kwp dan 39 Kwp)	2025	Renewable Energy	73885.71

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PT. HM Sampoerna - Sigaret Kretek Tangan (SKT) Rungkut-2

Project name	Description	Year	Type of energy used	Emission reduction [kg CO_2 eq]
Green electricity	Green electricity purchasing	2025	Electricity	156802.50
Solar Panel	Implementing renewable energy by using sunlight as a source of energy (capacity 155 Kwp)	2025	Renewable Energy	440042.27

PT. HM Sampoerna - Sigaret Kretek Tangan (SKT) - Kraksaan

Project name	Description	Year	Type of energy used	Emission reduction [kg CO_2 eq]
Green electricity	Green electricity purchasing	2025	Electricity	123472.50

PT. Hanjaya Mandala Sampoerna Tbk, Karawang Plant, Indonesia

Project name	Description	Year	Type of energy used	Emission reduction [kg CO_2 eq]
Green electricity	Green electricity purchasing	2025	Electricity	32266700
High efficiency chiller	High efficiency chiller and VSD installation aimed to increase utility system efficiency generates CO2 reduction in 2025	2023/ 2025	Electricity	1218594
Idle/sleep mode for Secondary Equipment	Setting equipment in secondary area into idle/sleep mode during no production generates CO2 reduction in 2025	2023/ 2025	Electricity	235779
AHU Improvement	Improvement aimed at reducing AHU energy by installing EC fans instead of AC, replacement existing AHU's coil, and AHU flowrate optimization generates reduction in 2025	2022/ 2025	Electricity	682567
Improvement Compressor Efficiency	Install high efficiency compressor in 2019, 2023 and 2024 for all production area generates reduction in 2025	2019/ 2025	Electricity	137689
Switch CA line at printing unit	Switching compressed air line for printing unit used on impression roll into independent compressor generates reduction in 2025	2024/ 2025	Electricity	65211

Project name	Description	Year	Type of energy used	Emission reduction [kg CO_2 eq]
Increase flow air process temperature and reduce steam consumption	Balancing of heating air flow to reduce steam consumption on annular dryer generates reduction in 2025	2024/ 2025	Gas	34898
New Layout CSF Dryer	Replacement drying process on CSF from electric dryer to existing clove dryer generates reduction in 2025	2024/ 2025	Electricity	344372
Steam Optimization	Reduce Steam flow from 400 kg/h to 350 kg/h for conditioning CRES line	2025	Gas	202008
Temperature Distribution Optimization	Adjustment air flow distribution in cut filler area that impact to shutdown 1 AHU	2025	Electricity	111951
Piping distribution optimization	Re-design piping distribution PPK-PPK-PPW- Clove-Clove & PPK-PPW- Clove	2025	Electricity	90475
FTD optimization	Automatic preheating FTD	2025	Electricity	80341
EC Fan installation	Installation EC fan for cut filler kretek production area	2025	Electricity	135312
Dryer Optimization on Primary SFP	Optimization driver on primary SFP by shutting down dryer during BCO and CIL	2025	Electricity	89958
Upgrade chilled water insulation	Upgraded material insulation for better insulation performance on chilled water utilities	2025	Electricity	29081
High efficiency compressor utilization	Utilization of high efficiency compressor as main supply for plant compressed air	2025	Electricity	89909

PT Phillip Morris Indonesia - Karawang Plant

Project name	Description	Year	Type of energy used	Emission reduction [kg CO_2 eq]
Solar Cell	Solar cell installed	2018/2025	Electricity	95154
Green electricity	Green electricity purchasing	2025	Electricity	12083845
Idle/sleep mode for Primary Equipment	Setting equipment in primary area into idle/sleep mode during no production generates CO2 reduction in 2025	2025	Electricity	223986
Maintenance switch installation	Install maintenance switch for energy segregation for LOTO application during CIL &	2023/2025	Electricity	46859

Project name	Description	Year	Type of energy used	Emission reduction [kg CO_2 eq]
for LOTO application	Start Up Shutdown implemented in 2023 and 2024 generates CO2 reduction in 2025			
Optimization lighting at Feeding and Cutting Area	Regroup lighting at feeding and cutting area to ensure optimal utilization generates CO2 reduction in 2025	2024/2025	Electricity	28104
Optimization filter storage temperature	Adjusting air conditioner for filter non menthol storage temperature from 25C to 27C – 30C	2025	Electricity	12158
Optimization lighting at Secondary Production	Scheduling shut off lighting area at Secondary Production during standby hours (Friday Prayer)	2025	Electricity	496
Optimization Air Conditioning at meeting room	Scheduling shut off air conditioning meeting room secondary production on weekend	2025	Electricity	536
Optimization equipment operation	Shut off S-TRS during CIL and Friday Prayer	2025	Electricity	8096

Massalin Particulares S.R.L, Merlo, Argentina

Project name	Description	Year	Type of energy used	Emission reduction [kg CO_2 eq]
Chilled water replacement	Install 3-way valves into 2-way valves that will modulate according to temperature area	2023	Electricity	16073
Transformer efficiency	Power transformer removal. Associated circuits will be relocated among the rest of the low voltage distribution cabinets	2023	Electricity	17235
Flash steam recovery	Heat recovery equipment installation in condensate return line. This energy will be used to reheat boiler water (55º to 80º)	2023	Gas	13089
Burner air preheating (Heat recovery vacuum)	Recover heat in vacuum systems exhaust. This energy will be recovered as boiler's burner air preheating. New pipes will be installed, and automation will be implemented	2023	Gas	4109
Steam traps	Steam system equipment upgrade. Installation of Venturi steam traps	2024/2025	Gas	106125
Heat recovery in a steam system	Recovery of condensate water from the steam line	2024/2025	Gas	50501

PHILIP MORRIS INTERNATIONAL

Philip Morris Operations a.d. Niš

Project name	Description	Year	Type of energy used	Emission reduction [kg CO_2 eq]
Electricity Green certificate	Green electricity certificate purchasing	2025	Electricity	14,437,574
Adiabatic humidification	Usage of high pressurize water for air humidification inside HVAC instead or steam	2025	Gas	87,437
Baseload assessment and reduction	Secondary compressed air reduction	2025	Electricity	23,353
Steam system equipment upgrade – Venturi steam traps	Upgrade of steam system equipment and implementing new steam traps.	2025	Gas	204,854
Optimization of mechanical dry system	Direct drive for cooling towers opening.	2025	Electricity	11,920
Steam system equipment upgrade	Insulation of return condensate lines	2025	Gas	31,810

Phillip Morris Investments B.V. Jordan

Project name	Description	Year	Type of energy used	Emission reduction [kg CO_2 eq]
Centralized Quality Laboratory	Quality Laboratory and primary laboratory centralized in one laboratory to reduce the electrical load and consumption	2024/2025	Electricity	2024: 5365 2025: 16154
Ultrasonic humidification system in tobacco storage area and non-tobacco material buffer area	Replace the Steam System with Ultrasonic humidification system in tobacco storage area and non-tobacco material buffer area	2024/2025	Electricity	2024: 27443 2025: 54888
Economizer Activation in Boilers	Heat recovery for water infeed to reduce the usage of LPG	2025	LPG	31749
LOTO project for Compressed air on main network and Linkups	Deployment LOTO for Compressed air reduce in shutdown to eliminate unnecessary air leakage	2025	Electricity	23414

PHILIP MORRIS INTERNATIONAL

Philip Morris Romania SRL

Project name	Description	Year	Type of energy used	Emission reduction [kg CO_2 eq]
Project One - Secondary production consumption KPI	Monitoring and improvement of production equipment consumption based on the of LV3 meters installed on equipment	2024/2025	Electricity	2024: 1122784 2025: 968233
Project One - Primary production consumption KPI	Monitoring and improvement of Primary production equipment consumption based on the of LV 3 meters installed on equipment	2024/2025	Gas	2024: 471346 2025: 1314607
AI HVAC	Optimize electricity consumption for conditioning by using AI tools	2024	Electricity	470581
AI HVAC	Optimize gas consumption used for ensuring humidity in production by using AI tools.	2024	Gas	257089
Utilities efficiency improvement	Improve performance of chilled water and compressed air system by elimination losses during operation	2024	Electricity	2024: 567242 2025: 812723
Utilities efficiency improvement	Improve performance of steam system by eliminating losses during operation	2024	Gas	285097
Multiple Energy Saving initiatives	ES08.05 - Deaerator Vent Condenser ES08.09 - Open condensate tank Vent Condenser	2024	Gas	2024: 31482 2025: 178008
Energy Saving initiatives ES 16.25	Install venturi traps with impact in condense recovery for utilities systems	2025	Gas	110946
ZCT Project	Decrease gas consumption by installing heat pumps, solar panel for e-Boiler	2025	Gas	1082284

3.3 Planned GHG emissions reduction initiatives

Table 3.3 shows main initiatives identified and their estimated reduction for the commitment period to 2023/2025 for PMI factories included in Manufacturing Entities Cluster 1. For ease of reading, the initiatives have been split by entity:

Table 3.3 - Planned GHG emissions reduction initiatives in Manufacturing Entities Cluster 1

Philip Morris Products SA - Neuchatel

Project name	Description	Year	Type of energy used	Estimated reduction [kg CO_2 eq]
Compressed air heat recovery	With the installation of the new compressor 315VSD, add the heat recovery	2026	Gas	30000
Use heat pumps spare capacity to heat up the heating loop of R&D building	Spare capacity that can be used for the R&D building and avoid natural gas consumption	2026	Gas	120000
Steam abnormal consumption AI detection	Use AI algorithm to detect automatically potential steam leakage for early detection	2026	Gas	20000

UAB Philip Morris Lietuva

Project name	Description	Year	Type of energy used	Estimated reduction [kg CO_2 eq]
Heat pump on dedusting system	Heat pump installation on dedusting system.	2026	Fuel	21018
Low load steam generator	Installation of electrical type steam generator. Steam boilers use gas constantly; generators can turn on/off without preheating.	2027	Fuel	65449
Project One (Electricity)	Continuous improvement program that focuses on energy management in production. Includes metering installation, data and glidepath creation for individual machinery.	2026	Electricity	59100
Project One (Fuel)	Continuous improvement program that focuses on energy management in production. Includes metering installation, data and glidepath creation for individual machinery.	2026	Fuel	93582

Project name	Description	Year	Type of energy used	Estimated reduction [kg CO_2 eq]
Cooling system control optimization	New control program will be installed to achieve better synchronization between cooler, chillers and consumers.	2026	Electricity	16838
Installation of Venturi steam traps (Production)	Mechanical steam traps will be replaced with venturi steam traps, to mitigate mechanical system tendence for breakdowns as well as it increases steam recovery performance.	2026	Fuel	15389
Venturi nozzles on compressed air guns	Venturi nozzles minimize compressed air consumption through venturi principle, taking in atmospheric air into flow.	2026	Electricity	1247
Heat recovery via Heat pump on compressed air system	Heat will be recovered from compressor's cooling loop, eliminating need to use dry coolers.	2026	Fuel	13061

Philip Morris CR a.s.

Project name	Description	Year	Type of energy used	Estimated reduction [kg CO_2 eq]
Project ONE	Activities focused on production equipment efficiency improvement. Metering, KPIs, reporting tools development. Focus in secondary: Compressed air + electricity. Focus in Primary: Natural Gas (Fuel) + Steam (Fuel) + Electricity + Compressed air (electricity).	2026 - 2027	Fuel, Electricity	68000
ES16.25 Steam system equipment upgrade - installation of Venturi steam traps	Installation of steam traps	2025/2026	Fuel	59000 (The CO2 reduction will be applied in 2026)
ES21 Thermal insulation in Primary equipment	Insulation of steam equipment in Primary	2025/2026	Fuel	19000 (The CO2 reduction will be applied in 2026)

Tabaqueira - Empresa Industrial de Tabacos, S.A. (Tabaqueira EIT, S.A.)

Project name	Description	Year	Type of energy used	Estimated reduction [kg CO_2 eq]
Energy Efficiency Plan 2023 - 2030	Implementation of approximately 20 energy saving projects	2023/2030	Gas/Electricity	1089700
Adiabatic humidification	Implementation of direct area humidification via water atomization to reduce steam consumption for HVAC	2023/2026	Gas/Electricity	588998
Photovoltaic Park	Installation of photovoltaic panels for solar energy use	2025/2026	Electricity	3735.2
Hybrid Boiler	Installation of a boiler that runs on gas and electricity	2025/2026	Gas/Electricity	1150000
Primary Energy Efficiency	Process improvement to increase energy efficiency in primary processes	2025/2026	Gas/Electricity	17846
Airquest Project	Reduction of humidity parameters in productive areas	2025/2026	Gas/Electricity	26837

Massalin Particulares S.R.L., Salta, Lerma Argentina

Project name	Description	Year	Type of energy used	Estimated reduction [kg CO_2 eq]
Solar Park	Installation of solar panels. Estimated installed power 1MW. 0.7 MW for own consumption and 0.3MW to inject into the electrical grid	2026	Electricity	593000
Steam Pipe Insulation	Installation of 150 meters of 2" steam pipe with insulation materials	2026/2027	Gas	4116
Installation of GEMT meters	Installation of energy meters Level 1 & 2 for consumption monitoring and improvement	2026/2027	Electricity/Gas	110000
Boiler burner optimization	Implementation of controllers to improve the performance of boiler burners + Installation of gas meter	2026	Gas	190477
Compress air	Optimization of the layout for compressed air distribution piping	2026	Electricity	50000

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Project name	Description	Year	Type of energy used	Estimated reduction [kg CO_2 eq]
Steam system equipment upgrade Condensate recovery	Steam Reduction consumption	2026	Steam	5000
ES CO2EQ recovery system (DIET balloon)	Recovery System for CO2EQ	2026	Electricity	6859
Energy recovery to Diet process (Heat)	Heat energy	2026	Electricity	150175
Baseload assessment and reduction – Process Areas	Automatically cut-off compressed air supply valve in process areas	2026	Electricity	3500
Riedel Eco Mode (Pilot TBD)	Feeding and dust collection system flow rate optimization	2026	Electricity	2820

Papastratos Cigarette Manufacturing Company, S.A.

Project name	Description	Year	Type of energy used	Estimated reduction [kg CO_2 eq]
Venturi Steam Traps Phase 2	Reduce steam loss from regular steam traps	2026	Gas	90000
Scirocco upgrade - Dryer Line #01	Higher efficiency production line	2026	Gas	850000
Scirocco upgrade - Dryer Line #02	Higher efficiency production line	2026/2027	Gas	283000
Zero carbon technology project	Installation of electric boiler and Heat pumps to reduce the fuel consumption	2027	Gas	9500000

Philip Morris Manufacturing Senegal S.A.R.L.

Project name	Description	Year	Type of energy used	Estimated reduction [kg CO_2 eq]
Boiler upgrade	Replacement of the boiler burner by O2 trim control system	2026	Fuel	440132
Compressed air interconnection	Compressors centralization to optimize their efficiency	2026	Electricity	18881

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Green Leaf Threshing Plant, Philip Morris (Pakistan) Limited, Mardan Pakistan

Project name	Description	Year	Type of energy used	Estimated reduction [kg CO_2 eq]
Energy Purchase from WAPDA	Annual electricity generation from Gensets via purchase from WAPDA. Machine Operation via WAPDA Power (Water and Power Development Authority)	2025/2026	Diesel Oil	1068271
Electricity conservation Initiatives	Packed WH Temp Automation -Automatic regulation of Cooling Hall temperature to avoid idle running of ventilation fans	2023/2026	Electricity	1887
LPG Conservation Initiative	Automation of Stem Dryer Installation of auto-steam trap (increased condensate recovery)	2023/2026	LPG	19404
Inverter AC	Replacement of Non-Inverter AC with Inverter AC to save electricity	2025/2026	Electricity	761
Inverter Fans	Replacement of fans with Inverter Fans	2025/2026	Electricity	837
Water jacket on boiler 2	Extension of water jacket on boiler 2 to reduce energy loss	2026	LPG	8225 (estimated)
Electricity Saving	Procurement of small, dedicated air compressor to facilitate TS workshop and QA lab for GLTT sample testing	2026	Electricity	8082 (estimated)

PT. HM Sampoerna, Sukorejo Plant, Indonesia and **PT. Sampoerna Indonesia Sembilan – Sukorejo Plant, Indonesia**

Project name	Description	Year	Type of energy used	Estimated reduction [kg CO_2 eq]
Chilled water optimizers	Optimized chiller system using AI	2026	Electricity	360062
Installation High Efficiency Chiller	Upgrade chiller to enhance energy efficiency by addressing various cooling needs	2026	Electricity	610400
Compress Air Pressure Reduction (to 6.0 Bar)	Optimized compress air consumption to reduce energy by decreasing pressure	2026	Electricity	49922
Steam Trap Venturi	Improve energy losses on steam traps using venturi system	2026	Gas	107250
Combine Dust Collector 6&7 to Dust Collector 11 in SKM3-4	Simplify and Optimized Dust Collector Usage to reduce electricity	2026	Electricity	141700

PHILIP MORRIS INTERNATIONAL

PT. HM Sampoerna - Sigaret Kretek Tangan (SKT) Malang, Rungkut 1, Rungkut 2, Kraksaan.

Project name	Description	Year	Type of energy used	Estimated reduction [kg CO_2 eq]
Green electricity	Buying green electricity on yearly basis	2026	Electricity	29541
Solar Panel	Implementing renewable energy by using sunlight as a source of energy in Plant Malang, Plant Rungkut 1 & Plant Rungkut 2	2026	Renewable Energy	3675

PT Hanjaya Mandala Sampoerna Tbk, Karawang Plant, Indonesia

Project name	Description	Year	Type of energy used	Estimated reduction [kg CO2 eq]
Optimization reject process	Tapping Mainline for secondary rejection system SFP production	2026	Electricity	95950
Centralization vacuum	Centralized Vacuum for Small Combi Vacuum Motor on LU 21 & LU 22 SFP Production	2026	Electricity	125870
Flash Steam Utilization	Flash steam utilization on Primary SFP	2026	Gas	78040
EC Fan installation	Installation EC fan for AHU in secondary production area	2026	Electricity	326735
Compressor Heat Recovery	Utilization of heat from compressor for boiler process	2026	Gas	161822
Boiler Efficiency	Improvement for boiler efficiency through real time monitoring	2026	Gas	34121
Boiler Economizer	Installation of additional boiler economizer	2026	Gas	111485
Automatic Blowdown Boiler	Optimalization for boiler blowdown system through automatization	2026	Gas	74323
Optimizer System	Activation of optimizer system	2026	Electricity	37875
Compressor Optimization	Running pump optimization	2026	Electricity	30553
Green electricity	Buying green electricity on yearly basis	2026	Electricity	32921755

PHILIP MORRIS INTERNATIONAL

PT Philip Morris Indonesia -Karawang International

Project name	Description	Year	Type of energy used	Estimated reduction [kg CO_2 eq]
Vacuum Centralization	Vacuum optimization though centralization of vacuum maker production	2026	Electricity	143205
Dust Collector Balancing	Balancing of dust collector load through automation	2026	Electricity	82483
Hotmelt Automation	Automatic off heater hotmelt case packer using machine status	2026	Electricity	74878
Green electricity	Buying green electricity generates on yearly basis	2026	Electricity	11197757
Solar cell	Solar cell installed since 2017/2018 generates CO2EQ reduction	2026	Electricity	95154

Massalin Particulares S.R.L, Merlo plant, Argentina

Project name	Description	Year	Type of energy used	Estimated reduction [kg CO_2 eq]
Solar Plant	Install photovoltaic solar plant	2026	Electricity	376886
Steam Pipe Insulation	Installation of 400 meters of 2" steam pipe with insulation materials.	2026/2027	Gas	10976
Chilled water optimizers	Optimized chiller system using Kiltech	2027	Electricity	100000
Riedel Eco Mode	Feeding and dust collection system flow rate optimization	2026	Electricity	2820
Solar Plant	Install photovoltaic solar plant	2026/2027	Electricity	376886
Ultrasonic leakage detection		2027		48914

Philip Morris Operations a.d. Niš

Project name	Description	Year	Type of energy used	Estimated reduction [kg CO_2 eq]
Steam system equipment upgrade	Replacement of boilers with more efficiency	2026	Gas	1,354,752
Programmable schedule control	Programmable schedule control	2026	Electricity	97,698
Compressed Air	Air intake from colder areas	2026	Electricity	32,566

Project name	Description	Year	Type of energy used	Estimated reduction [kg CO_2 eq]
Electricity Green Certificate	Green electricity purchasing on a yearly basis	2026	Electricity	16,797,264

Phillip Morris Investments B.V. Jordan

Project name	Description	Year	Type of energy used	Estimated reduction [kg CO_2 eq]
Heat recovery via Heat pump - CA system (Heat pump package - NBFS & Stem bin filling station) OPP-103268	Replace the old Heating, Ventilation, and Air Conditioning package with heat pump to reduce the electricity usage	2026	Electricity	150000
Water Evaporating Fans for stem bin filling station	Replace the old System with Water Evaporating Fans system in stem bin filling station	2026	Electricity	46000
Compressed Air - air intake from colder areas (Compressed air room Isolation)	(Compressed air room isolation)	2026	Electricity	38000
Photovoltaic Systems OPP-101161	Install Photovoltaic for block 6 and 5 daily use	2026	Electricity	612000

Philip Morris Romania SRL

Project name	Description	Year	Type of energy used	Estimated reduction [kg CO_2 eq]
Project One - Secondary production consumption KPI	Monitoring and improvement of production equipment consumption based on the of LV 3 meters installed on equipment, including compressed air consumption	2026	Electricity	983513
Project One - Primary production consumption KPI	Monitoring and improvement of Primary production equipment consumption based on the of LV 3 meters installed on equipment	2026	Gas	1234561
Utilities efficiency improvement – chilled water station interconnection	Improve performance of chilled water by interconnecting 2 chillers plants for efficiency improvement	2026-2027	Electricity + Gas	769638
Utilities Efficiency improvement – Heating systems interconnection	Improve efficiency in heating system generation by interconnecting multiple substations and optimizing the load on Heat Pump station	2026-2027	Gas	399000

Project name	Description	Year	Type of energy used	Estimated reduction [kg CO_2 eq]
Energy Saving initiatives ES 16.25	Install venturi traps with impact in condense recovery for production equipment	2026	Gas	250000
Zero Carbon Tech Project	Decrease gas consumption by installing heat pumps, solar panel for e-Boiler	2026	Gas	4200000
Scirocco project	Improve performance of gas consumption by insulating the dryer surface	2026-2027	Gas	500000

Actual emissions reductions will be measured in terms of intensity metrics relating to production output.

4 Carbon offset program

4.1 Offset program for this application period

PMI has an offsetting program in place to support carbon neutrality, based on quality criteria aligned with the applicable international standards and targeting social and economic benefits.
Carbon neutrality is achieved by reducing and compensating Greenhouse Gases (GHG) emissions through supporting the development of sustainable climate solutions in developing countries. Compensation projects bring social, environmental, and economic benefits, which contribute to United Nations Sustainable Development Goals (SDGs) and are labelled by independent carbon standards such as **Verified Carbon Standard (VCS)**[1], **Climate Community and Biodiversity Alliance (CCBA)**[2], **Gold Standard**[3].
To compensate residual **R12M 2025 GHG emissions**, PMI has selected a set of carbon projects as described in paragraph 4.2.
Credits were retired **on 28th January 2026.**
These projects are supported by publicly available project documentation on the GSF Registry (goldstandard.org) and on the VERRA registry (https://registry.verra.org/). The registry system is the central storehouse of data on all registered projects, and tracks the generation, retirement and cancellation of all credits. To register with the program, projects must show that they have met all standards and methodological requirements.

[1] https://verra.org/

[2] http://www.climate-standards.org/

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

4.2 Offsetting project(s)

Offsetting projects selected by PMI Manufacturing Entities Cluster 1 for compensating the **2025** emissions are:

#	Project Name	Carbon credits allocation		Official project link
		tons	%	
1	BigCoast Forest Climate Initiative	14819	22%	https://registry.verra.org/app/projectDetail/VCS/3018
2	Henan Funiushan Solar Cooker Project Phase I	52293	78%	https://registry.goldstandard.org/projects/details/1654
		67112	**100%**	

The offsets are allocated to the individual entities as per following table:

Reporting Entity	Credits allocated for compensation (tons)	Project chosen for compensation	Vintage
AR (MASSALIN Merlo)	2081	BigCoast Forest Climate Initiative	01/01/2019-31/12/2019
AR LF (MASSALIN Lrm)	4408	BigCoast Forest Climate Initiative	01/01/2019-31/12/2019
BR (Santa Cruz)	4867	BigCoast Forest Climate Initiative	01/01/2019-31/12/2019
CH (PMP SA Neuch)	856	Henan Funiushan Solar Cooker Project Phase I	2019
CZ (Kutna Hora)	2380	BigCoast Forest Climate Initiative	01/01/2019-31/12/2019
GR (PAPASTRATOS)	12752	Henan Funiushan Solar Cooker Project Phase I	2020
GR (PAPASTRATOS)	5	BigCoast Forest Climate Initiative	01/01/2019-31/12/2019
ID (PTPMI Karawang)	871	BigCoast Forest Climate Initiative	01/01/2019-31/12/2019
ID (PTSIS Sukorejo)	9	BigCoast Forest Climate Initiative	01/01/2019-31/12/2019
ID (SAMP Karawang)	6702	Henan Funiushan Solar Cooker Project Phase I	2020
ID (SAMP Karawang)	193	Henan Funiushan Solar Cooker Project Phase I	2019
ID (SAMP Sukorejo)	5398	Henan Funiushan Solar Cooker Project Phase I	2020
ID SKT (Kraksaan SAMPOERNA)	23	Henan Funiushan Solar Cooker Project Phase I	2020
ID SKT (Malang SAMPOERNA)	22	Henan Funiushan Solar Cooker Project Phase I	2020
ID SKT (Rungkut 1 SAMPOERNA)	78	Henan Funiushan Solar Cooker Project Phase I	2020
ID SKT (Rungkut 2 SAMPOERNA)	47	Henan Funiushan Solar Cooker Project Phase I	2020
JO (Amman)	307	Henan Funiushan Solar Cooker Project Phase I	2020
LT (Klaipeda)	198	BigCoast Forest Climate Initiative	01/01/2019-31/12/2019

PK LF (PMPK Mard)	1490	Henan Funiushan Solar Cooker Project Phase I	2020
PT (TABAQUEIRA)	308	Henan Funiushan Solar Cooker Project Phase I	2020
PT (TABAQUEIRA)	3328	Henan Funiushan Solar Cooker Project Phase I	2019
RO (Bucharest)	15000	Henan Funiushan Solar Cooker Project Phase I	2019
RO (Bucharest)	1219	Henan Funiushan Solar Cooker Project Phase I	2019
RS (DIN)	4257	Henan Funiushan Solar Cooker Project Phase I	2019
SN (Dakar)	313	Henan Funiushan Solar Cooker Project Phase I	2019

4.3 Amount of credits purchased

Credits have been purchased by PMI for the period covering **1st of January 2025 – 31st December 2025.**
The amount of credits purchased is **67,112** tons of CO_2 equivalent, it is composed by two contributions:

- **65,157 tons of CO_2 equivalent**, amount evaluated for this application period
- **1,955 tons of CO_2 equivalent**, that represent an additional 3% of the baseline carbon footprint to cover all the exclusions (Annex B) and to preclude underestimation.

We can reasonably assume that this amount covers 100% of the GHG emissions of PMI Manufacturing Entities Cluster 1 Factories.

PMI Manufacturing Entities Cluster 1 Manufacturing entities portfolio offsetting credits is composed as per the table in paragraph 4.2

The Gold Standard and VERRA guarantee that the offsets **generated represent genuine, additional GHG** emission reductions. The projects are technically designed so as to enable the quantification of a specific number of emissions reductions/removals the carbon credits expected from each farm/forest. The Gold Standard and VERRA label also guarantee that the projects involved in delivering credits meet the criteria of additionality, permanence, leakage, and double counting.

It also guarantees that the units were verified by an independent third-party and that the credits were only issued after the emission reduction has taken place.

Retired credits certificates are linked on behalf of PMI for Manufacturing Entities Cluster 1 of manufacturing entities, for offsetting unavoidable emissions, **in year 2025:**
https://registry.verra.org/myModule/rpt/myrpt.asp?r=206&h=254888
https://registry.goldstandard.org/batch-retirements/details/232483
https://registry.goldstandard.org/batch-retirements/details/232485
https://registry.goldstandard.org/batch-retirements/details/232486
https://registry.goldstandard.org/batch-retirements/details/232487

5 Annex A – Carbon Neutrality Verification opinion

SGS

Verification Statement Number:
CCP267920MC1.PMI.2025.2026.02.15

The Carbon Neutrality Declaration Report as presented, for the application period 01/01/2025 – 31/12/2025 by:

Phillip Morris International Manufacturing Entities Cluster 1, as defined in the scope section of this opinion and comprising manufacturing related activities of:

Reporting entity
PT (TABAQUEIRA)
CH (PMP SA Neuch)
LT (Klaipeda)
CZ (Kutna Hora)
AR LF (MASSALIN Lrm)
BR (Santa Cruz)
GR (PAPASTRATOS)
SN (Dakar)
PK LF (PMPK Mard)
ID (SAMP Sukorejo)
ID (PTSIS Sukorejo)
ID SKT (Malang SAMPOERNA)
ID SKT (Rungkut 1 SAMPOERNA)
ID SKT (Rungkut 2 SAMPOERNA)
ID SKT (Kraksaan SAMPOERNA)
ID (PTPMI Karawang)
ID (SAMP Karawang)
AR (MASSALIN Merlo)
RS (DIN)
JO (Amman)
RO (Bucharest)

has been verified by SGS United Kingdom Limited as Carbon Neutral and in accordance with current best practice for carbon neutrality claims as per the verification criteria detailed below.

Lead Assessor: Lisa Gibson
Technical Reviewer: Andrew Collins

SGS United Kingdom Ltd | Rossmore Business Park, Ellesmere Port, Cheshire CH65 3EN. **Tel** +44 (0)151 350 6666 **Fax** +44 (0)151 350 6600
Climate Change Programme ukclimatechange@sgs.com www.sgs.com
Member of SGS Group

PHILIP MORRIS
INTERNATIONAL

Authorised by:

James McGurk

Managing Director

SGS United Kingdom Ltd

Verification Statement Date: 15 February 2026

This Statement is not valid without the full verification scope, objectives, criteria and conclusion available on pages 2 to 6 of this Statement

PHILIP MORRIS INTERNATIONAL

SGS

Schedule Accompanying Greenhouse Gas Verification Statement
CCP267920MC1.PMI.2025.2026.02.15

Brief Description of Verification Process
SGS has been contracted by Philip Morris International for the verification of their Carbon Neutrality Declaration Report for Manufacturing Entities Cluster 1, for the application period 01/01/2025 – 31/12/2025

Roles and Responsibilities
The management of Philip Morris International (PMI) responsible for the organization's GHG information system, the development and maintenance of records and reporting procedures in accordance with that system, including the calculation and determination of GHG emissions information, determination of GHG emissions reductions, preparation of reports and purchase and retirement of appropriate carbon offsets.

It is SGS' responsibility to express an independent opinion on the Carbon Neutrality Declaration as provided by the client for the application period.

SGS conducted a third-party verification following the requirements of ISO 14064-3: 2019 of the provided carbon neutral declaration report during the period September 2025 to February 2026. The assessment was conducted via desk review. The verification was based on the verification scope, objectives and criteria as agreed between Philip Morris International and SGS.

Verification Criteria:

- Determination of emissions and reductions in accordance with the WRI/WBCSD GHG Protocol, Corporate Accounting and Reporting Standard for the baseline year and subsequent years.
- Transparent definition of the scope and boundary of activities included within the subject of the Carbon Neutral claim
- Establishment and Implementation of a Carbon footprint management plan targeting emissions reductions by defined actions
- Quantifiable reductions in emissions have been achieved year on year based on actions taken as part of the Carbon footprint management plan
- Carbon Neutral declaration produced that provides sufficient detailed information for the claim, quantification methodology, scope, carbon management plan, reductions and offsets to be fully transparent.
- Offsetting of residual emissions has been undertaken with carbon credits that:
  - Have been verified by an independent third-party verifier
  - Have been retired or cancelled via an independent and credible registry
  - Are only issued after the reduction associated with the project has taken place (ex-post)
  - Represent genuine additional reductions elsewhere
  - Meet the criteria of permanence, leakage, additionality and permanence as defined in the WRI/WBCSD GHG Protocol for project accounting
  - Are supported by publicly available project documentation available on a registry or equivalent that provides details of the offset project, the quantification methodology and the validation and verification procedures.

Objectives
The purpose of the verification exercise was, by review of objective evidence, to independently review and confirm:

- That the carbon neutrality declaration report and company actions conform to the specified verification criteria
- That the emissions data reported in the declaration, including reductions, are accurate, complete, consistent, transparent, and free of material error or omission and have been determined in accordance with .WRI/WBCSD GHG Protocol, Corporate Accounting and Reporting Standard
- That evidence is available to support information reported within the carbon neutrality declaration report including carbon offset purchases and retirements.

Level of Assurance
The level of assurance agreed is reasonable.

Scope
This engagement covers verification of:

- The organizational boundary was established following the operational control consolidation approach for each of the manufacturing affiliates.
- Title or description of activities: Emissions for manufacturing facilities, warehousing, offices and operator-controlled fleet.
- Scope 1 & 2 emissions only
- Location/boundary of the activities: as per list below
- The environmental information provided was based on a combination of historical data, estimation methodologies and data extrapolation considered representative of calendar year 2025. Data is actual for January to September 2025 and estimated for October to December 2025, with the exception of markets environmental data which is actual for January to June 2025 and estimated for July to December 2025.

Intended user of the verification statement: internal, customers, general public.

6 Annex B – Scope 1, 2 and 3 emissions inclusion and exclusion

Included and excluded emission sources related to the subject(s) are presented below, together with explanation for exclusions.

Scope	Emission source	Description	Inclusion exclusion	Justification of Exclusion
1.1	Stationary combustion	Combustion of fuels in boilers and furnaces for the generation of heat and steam, used for production processes and heating of buildings	Included	-
1.2	Mobile combustion sources	Transportation of employees and goods with cars under affiliate control.	Included	-
1.3	Process emissions	Emissions occurring during the production process (DIET)	Included	-
1.4	Fugitive emissions	Refrigerant gases losses	Included	As of 2025 reporting year.
2.1	Electricity consumption	Generation of purchased electricity	Included	-
2.2	Heat, steam and/or cold consumption	Purchase of heat, steam or cold energy not produced at operation site.	Included	-
3	Scope 3	All other indirect emissions	Excluded	Out of scope

Table 6.1 - Inclusions and exclusions

7 Annex C – Uncertainty calculation

7.1 Uncertainty calculation

Uncertainties around the quantification of the carbon footprint have been assessed throughout the assessment following the guidelines released by ISO and available in the "GHG Protocol's Measurement and Estimation Uncertainty of GHG Emissions tool" (supporting worksheet file "2025 UC file Manufacturing Entities Cluster 1I")[4]; since the uncertainties are not known for all the parameters (activity data and emission factors), the IPCC Guideline for National Greenhouse Inventories Reporting Instructions (1996) was used:

- Activity data: 7%
- Emission factor: 7%

All information can be accessed in the below file attached:

2025 UC file Cluster 1.xlsx

Outcome of the uncertainty calculation (from uncertainty Manufacturing Entities Cluster 1 attached file)

Source description												
Natural gas	993364373.09	MJ	+/- 7.0%	0.06	kg CO2 / MJ	+/- 7.0%	55,926,414.20	55,926.41	+/- 9.9%	Good	5,536.43	#########
LPG	49983158.36	MJ	+/- 7.0%	0.06	kg CO2 / MJ	+/- 7.0%	3,198,922.14	3,198.92	+/- 9.9%	Good	316.68	100,284.41
Diesel or Fuel oil light EL	10780741.15	MJ	+/- 7.0%	0.07	kg CO2 / MJ	+/- 7.0%	763,815.51	763.82	+/- 9.9%	Good	75.61	5,717.46
Biomass	88094800.79	MJ	+/- 7.0%	0.00	kg CO2 / MJ	+/- 7.0%	273,093.88	273.09	+/- 9.9%	Good	27.03	730.89
Fuel oil	1501287.65	MJ	+/- 7.0%	0.08	kg CO2 / L	+/- 7.0%	118,921.68	118.92	+/- 9.9%	Good	11.77	138.60
Fleet Biodiesel	2.00	L	+/- 7.0%	0.17	kg CO2 / L	+/- 7.0%	0.34	0.00	+/- 9.9%	Good	0.00	0.00
Fleet Bioethanol	174.00	L	+/- 7.0%	0.01	kg CO2 / L	+/- 7.0%	1.57	0.00	+/- 9.9%	Good	0.00	0.00
Fleet Natural gas	0.00	L	+/- 7.0%	1.17	kg CO2 / L	+/- 7.0%	0.00	0.00	+/- 9.9%	Good	0.00	0.00
Petrol	16644.53	MJ	+/- 7.0%	0.07	kg CO2 / MJ	+/- 7.0%	1,081.89	1.08	+/- 9.9%	Good	0.11	0.01
Electricity - Market based	351316740.00	kWh	+/- 7.0%	0.00	kg CO2 / kWh	+/- 7.0%	0.00	0.00	+/- 9.9%	Good	0.00	0.00
Fleet Fuel Diesel	50348.88	L	+/- 7.0%	2.57	kg CO2 / L	+/- 7.0%	129,436.90	129.44	+/- 9.9%	Good	12.81	164.19
Fleet Fuel Petrol	336225.24	L	+/- 7.0%	2.08	kg CO2 / L	+/- 7.0%	700,827.89	700.83	+/- 9.9%	Good	69.38	4,813.37
CO2 in DIET Process (ID Plant Biogenic)	2078946.00	Kg	+/- 2.0%	0.00	kg/kg	+/- 1.0%	0.00	0.00	+/- 2.2%	High	0.00	0.00
CO2 in Diet Process	2283954.00	Kg	+/- 2.0%	1.00	kg/kg	+/- 1.0%	2,283,954.00	2,283.95	+/- 2.2%	High	51.07	2,608.22
							0.00	0.00	+/- 0.0%	High	0.00	0.00
							0.00	0.00	+/- 0.0%	High	0.00	0.00
							0.00	0.00	+/- 0.0%	High	0.00	0.00
							0.00	0.00	+/- 0.0%	High	0.00	0.00
							0.00	0.00	+/- 0.0%	High	0.00	0.00
							0.00	0.00	+/- 0.0%	High	0.00	0.00
							0.00	0.00	+/- 0.0%	High	0.00	0.00
							0.00	0.00	+/- 0.0%	High	0.00	0.00
							0.00	0.00	+/- 0.0%	High	0.00	0.00
							0.00	0.00	+/- 0.0%	High	0.00	0.00

Note: For individual uncertainties greater than 60%, the results of the tool are not valid

Sum CO_2 emissions (M):	63,396,470.01	63,396.47

Step 4: Cumulated Uncertainty:	$\pm u = \pm \frac{\sqrt{\sum_{i=1}^{n} (H_i * I_i)^2}}{M}$	+/- 8.7%	Aggregated Certainty Ranking: Good

Table 7.1 - Uncertainty calculations

[4] https://ghgprotocol.org/calculation-tools

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Uncertainties due to emission Factors and Activity Data				
1	2	3	4	5
Gas	**Source category**	**Emission factor**	**Activity data**	**Overall uncertainty**
CO_2	Energy	7%	7%	10%
CO_2	Industrial Processes	7%	7%	10%
CO_2	Land Use Change and Forrestry	33%	50%	60%
CH_4	Biomass Burning	50%	50%	100%
CH_4	Oil and Nat. Gas Activities	55%	20%	60%
CH_4	Rice cultivation	3/4	1/4	1
CH_4	Waste	2/3	1/3	1
CH_4	Animals	25%	10%	20%
CH_4	Animal waste	20%	10%	20%
N_20	Industrial Processes	35%	35%	50%
N_20	Agricultural Soils			2 orders of magnitude
N_20	Biomass Burning			100%

Note: Individual uncertainties that appear to be greater than ± 60% are not shown. Instead judgement as to the relative importance of emissions factor and activity data uncertainties are shown as fractions which sum to one

Source:
Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories: Reporting Instructions

Table 7.2 - IPCC uncertainty data

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8 Annex D – Voluntary offset program

In this annex, shortlist of projects chosen for compensation of **2025 R12M** emissions.

#	Project Name	Carbon credits allocation		Official project link
		tons	%	
1	BigCoast Forest Climate Initiative	14819	22%	https://registry.verra.org/app/projectDetail/VCS/3018
2	Henan Funiushan Solar Cooker Project Phase I	52293	78%	https://registry.goldstandard.org/projects/details/1654
		67112	**100%**	

PHILIP MORRIS INTERNATIONAL

CARBON NEUTRAL DECLARATION

MANUFACTURING ENTITIES CLUSTER 1

END OF THE DOCUMENT