



PHILIP MORRIS INTERNATIONAL

DECLARATION OF CARBON NEUTRALITY

CONFIDENTIALITY NOTICE

This document is strictly confidential. Information contained in this document may not be reproduced or disclosed to any person without the written permission of Philip Morris International.

Table of contents

0 Carbon Neutrality declaration	4
1 Introduction	5
1.1 General information	5
1.2 Scope	6
1.3 Boundaries of the subject	6
2 Quantification of carbon footprint	8
2.1 Emissions results	8
2.2 Methodology	8
2.3 Data sources	9
2.4 Assumptions and estimations	10
2.5 Exclusions	10
2.6 Uncertainties	10
2.7 Comparison with baseline period results	10
3 Carbon Management Plan	11
3.1 PMI best practice	11
3.2 Implemented GHG emissions reduction project repository	11
3.3 Planned GHG emissions reduction initiatives	12
4 Carbon offset program	13
4.1 Offset program for the first application period	13
4.2 Offsetting project(s)	13
4.3 Amount of credits purchased	13
4.4 Compensation program for the second application period	16
5 Annex A – Carbon Neutral Assurance letter	17
6 Annex B – Qualifying Explanatory Statements (QES) checklist	21
7 Annex C – Scope 1, 2 and 3 emissions inclusion and exclusion	22
8 Annex D – Uncertainty calculation	23
8.1 Uncertainty calculation	23
9 Annex E – Voluntary offset program	25
10 Annex F – Renewable Energy Certificates	26

10.1 PT. HM Sampoerna - Sigaret Kretek Tangan (SKT) Rungkut-1.....	26
--	----

Table of Figures:

Table 1.1 - General information.....	6
<i>Table 2.1 - GHG emissions overall results.....</i>	<i>8</i>
Table 3.1 - Green electricity increase.....	11
Table 3.2 - Implemented GHG emissions reduction projects.....	12
Table 3.3 - Planned GHG emissions reduction initiatives.....	12
Table 7.1 - Inclusions and exclusions.....	22
Table 8.1 - Uncertainty calculations.....	23
Table 8.2 - IPCC uncertainty data.....	24

CONFIDENTIALITY NOTICE

Information contained in this document shall not be reproduced, disseminated, or disclosed in any way to any person without the prior written consent of Philip Morris International.

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) and is believed to be correct. If provided with any information affecting the validity of the following statements, this document will be updated accordingly to reflect the affiliate(s) current status towards carbon neutrality. This report is publicly available on a dedicated website

<https://www.pmi.com/carbon-neutrality-declaration-2022-skt-rungkut-1>

This is the **first declaration** of achievement for **PT. HM Sampoerna - Sigaret Kretek Tangan (SKT) Rungkut-1**.

Carbon Neutrality of the Scope 1 and 2 emissions under the direct operational control of **PT. HM Sampoerna - Sigaret Kretek Tangan (SKT) Rungkut-1** manufacturing operations, achieved by **PT. HM Sampoerna - Sigaret Kretek Tangan (SKT) Rungkut-1** in accordance with PAS2060:2014 at 31st December 2021 with a commitment to maintain to 31st December 2022 for the period commencing 1st January 2021, SGS United Kingdom Limited Certified.

Certification letter 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) has achieved **carbon neutrality** for **PT. HM Sampoerna - Sigaret Kretek Tangan (SKT) Rungkut-1** manufacturing plant for the period starting 1st January 2021 and ending 31st December 2021, in accordance with PAS 2060:2014.

This has been achieved through:

- **Continuous carbon emissions reduction** through action plans under PMI direct controls: affiliates and fleet under affiliates' control. These reductions have been captured as part of the GHG inventory for 2021.
- **Compensation of remaining carbon emissions** for the period commencing 1st January 2021 and ending 31st December 2021.

This report includes the information which substantiates the declaration of PMI affiliates achievement of carbon neutrality for first application period (under PAS 2060:2014) and commitment on carbon neutrality up to 2025 (5 years, from 2021 the reference year) in compliance with PAS 2060:2014 standard.

PMI affiliates has also set up a **Carbon Management Plan** to **reduce the GHG emissions associated to the manufacturing processes** in order to demonstrate commitment to being carbon neutral in accordance with PAS2060:2014 standard.

1.1 General information

PAS 2060 Information requirement	Information as it relates to PMI affiliates
Entities making PAS 2060 declarations	PT. HM Sampoerna - Sigaret Kretek Tangan (SKT) Rungkut-1
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)	Gianluca Capodimonte
Subject of PAS 2060 declaration	Scope 1 & 2 Emissions under the operational control of PT. HM Sampoerna - Sigaret Kretek Tangan (SKT) Rungkut-1 manufacturing plant. (complete list available in Annex C)
Function of subject	Factory manufacturing conventional products for PMI and its brands.
Activities required for subjects to fulfil its function	The activities required within the manufacturing process are: Manufacture of Tobacco Related Products;

	<p>Manufacture of Hand-Rolled Cigarettes;</p> <p>Quality Control Laboratory Activities;</p> <p>Warehousing Activities</p>
Rationale for selection of the subjects	<p>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.</p>
Type of conformity assessment undertaken	I3P-3 Independent third-party certification - unified
Reference date for PAS 2060 programme	1 st of January 2021
Achievement period	1 st of January 2021 – 31 st of December 2021
Commitment period	1 st of January 2022 – 31 st of December 2025

Table 1.1 - General information

1.2 Scope

The **subject** for carbon neutrality is the following affiliate:

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

The main business activity is the manufacturing of conventional products within PMI brands as reported in Annex C.

During the reporting period, the definition of the subject(s) remained unchanged. In the case that 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 affiliate** and **under the affiliate 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 to affiliate manufacturing process within the defined boundary from the periods of 1st January 2021 to 31st December 2021 have been quantified in accordance with GHG Protocol Corporate Accounting Standard (operational control), and verified by SGS.

The data for this first application period has been **verified by an independent third party**, SGS, who certifies that the Carbon Neutral Declaration set out in this QES is appropriately reported in accordance with the requirement of PAS 2060:2014.

The assurance letter issued by SGS can be found in Annex A.

2 Quantification of carbon footprint

2.1 Emissions results

The total GHG emissions related to scope 1 and 2 refer to manufacturing process during the year 2021 (1st application period) and represent a total of 159 **tons of CO₂ equivalent**.

GHG scope	GHG emissions [tCO ₂ eq]	Scope contribution
Scope 1 – Manufacturing	0,3	0,2%
Scope 1 – Fleet	158,7	99,8%
Scope 2 – Market based	0	0%
Total carbon footprint	159	100%

Table 2.1 - GHG emissions overall results

2.2 Methodology

Total GHG emissions associated with PMI affiliate(s), 1st January 2021 to 31st December 2021, 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 and PAS 2060:2014 endorses it as being fully compliant with its requirements.

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

- carbon dioxide (CO₂),
- methane (CH₄),
- nitrous oxide (N₂O).

The inventory accounts for 100% of GHG emissions of business activities and operations in which PMI affiliate(s) has 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 the affiliate(s). 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)

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 affiliate(s). 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 the affiliate(s) that occur from sources not owned or controlled by the PMI affiliate 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, secondary data was used to quantify emission. For scope 1 and 2, primary data were exclusively used.

1. Primary Data source related to all inputs and outputs corresponding to steps under the affiliates 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 the inventory verification , and certification against PAS 2060:2014 processes.

2.4 Assumptions and estimations

All assumptions made to quantify the Greenhouse gas emission of PMI affiliates were reviewed by SGS through the GHG inventory verification process. For scope 1 and 2, no assumptions were made. For fleet, fuel consumption and emissions have been determined by using the PMI available data for Fleet in the respective market. Taking the average fuel consumption per car, this value has been multiplied by the number of benefits car in the factory. The total fuel consumption is then multiplied using DEFRA coefficient to determine the emissions

2.5 Exclusions

Annex C 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 affiliate 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 major source of uncertainties on 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).
- Secondary data has been used only for fleet emissions calculation.

Result of the uncertainty calculation is reported in Annex D.

2.7 Comparison with baseline period results

This section will be completed in subsequent years as 2021 is the first PAS 2060:2014 certification year, therefore will be used as baseline period subsequently.

3 Carbon Management Plan

The carbon reduction management plan will consider a 5 years period (2021-2025) with the aim of maintaining the emissions down, this means that the emission indicator must not increase along the period.

This target will be monitored periodically (annually) in order to check if the expected results are aligned to the real ones. In order to achieve the target a series of project will be implemented.

Although PMI affiliates began its Carbon Management Programme for Carbon Neutrality in 2020, energy saving measures have been implementing since 2010 within the production plants (i.e. Klaipeda (Lithuania) PMPA (Switzerland), Philip Morris Mexico Productos y Servicios (Mexico)). Others started later and will be considered in the boundaries of this study.

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 2021, 37 out of 42 affiliates, 100% of electricity purchased came from renewable sources (electricity source for the affiliates in the carbon neutral factory certification are provided in annex F). Since 2017, we are gradually increasing the uptake of green electricity (as showed in below table) to reach 100% green electricity purchased for all our affiliates by 2025. By investing in renewable energy electricity, PMI overall avoided the emissions of **over 1,3 million ton of CO₂ equivalent**.

Indicator	2017	2018	2019	2020	2021	Total Value
CO2 Scope 2 (GHG emissions) - Manufacturing - Market based [t GHG]	217.563	149.757	111.508	65.289	41.157	585.273
CO2 Scope 2 (GHG emissions) - Manufacturing - Location based [t GHG]	414.126	395.371	398.332	357.670	336.964	1.902.463
Cumulative difference between location based and market based	196.563	245.615	286.824	292.382	295.807	1.317.190

Table 3.1 - Green electricity increase

3.2 Implemented GHG emissions reduction project repository

At PMI, emissions reduction project governance and budget approval comes from two distinctive main streams; one driven from central functions and another by the local team. Table 3.2 shows project implemented in the last few years, evaluated in 2020 Carbon Footprint assessment.

Project name	Description	Year	Type of energy used	Emission reduction [kg CO2 eq]
Solar Panel	Implementing renewable energy by using sunlight as a source of energy (capacity 250 kVA)	2020	-	-

Table 3.2 - Implemented GHG emissions reduction projects

3.3 Planned GHG emissions reduction initiatives

In order to achieve the above-mentioned target, PMI is committed to identifying and implementing carbon saving projects until 31/12/2025. Table 3.3 shows main initiatives identified and estimated reduction for the whole commitment period (2021-2025).

Initiative name	Description	Year planned	Type of energy used	Estimated reduction [kg CO2eq]
Optimize Utilization of lighting & Air Conditioning	Optimize lighting & AC by installing timer/presence sensor at production unit Warehouse, Offices, Toilet, Server Room, Production,etc	2022	Electrical	-
Optimize lighting at production area	replace the large power lamp with a more efficient power	2022	Electricity	-
Optimize utilization of utility	Optimize running time of Exhaust Fan, Optimize room temperature for server room (25° C), VSD (Variable speed drive) for exhaust > 5 KW	2022	Electricity	-

Table 3.3 - Planned GHG emissions reduction initiatives

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

4 Carbon offset program

4.1 Offset program for the first application period

PMI has an offsetting program in place to support the carbon neutrality, based on quality criteria aligned with the most rigorous international standards and targeting social and economic benefits.

Through collaborating with **Carbonsink** (an internationally recognized stakeholder in carbon neutral strategies), PMI has invested into an offsetting “Gs2447 Gs1265 African Biomass Energy Conservation Poa Malawi Biomass Conservation” that has been used to compensate outstanding emissions in this declaration of carbon neutrality.

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 **Standard (VCS)**¹, **Climate Community and Biodiversity Alliance (CCBA)**², **Gold Standard**³, and other offsets as endorsed in PAS2060.

Credits were retired on 27th June 2022

These credits are supported by publicly available project documentation on the [GSF Registry \(goldstandard.org\)](https://registry.goldstandard.org)⁴. 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.

4.2 Offsetting project(s)

Offsetting projects selected by PT. HM Sampoerna - Sigaret Kretek Tangan (SKT) Rungkut 1 are:

“Gs2447 Gs1265 African Biomass Energy Conservation Poa Malawi Biomass Conservation”

4.3 Amount of credits purchased

Credits have been purchased by PMI for the period covering 1st of January 2021 – 31st December 2021. The amount of credits purchased is 164 tonnes of CO₂ equivalent, it is composed by two contributions:

¹ <https://verra.org/>

² <http://www.climate-standards.org/>

³ <https://www.goldstandard.org/>

⁴ <https://registry.goldstandard.org/projects?q=&page=1>

- **159 tonnes of CO₂ equivalent**, amount evaluated for the first application period
- **5 tonnes of CO₂ equivalent**, that represent the overrate of 3% of the carbon footprint to cover all the exclusions (Annex C) and precludes underestimation.

We can reasonably assume that PMI Factory Carbon Neutral covers 100% of the GHG emissions.

PMI portfolio offsetting credits is composed of:

Project: Gs2447 Gs1265 African Biomass Energy Conservation Poa Malawi Biomass Conservation”– 100%
The Gold Standard 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 label also guarantee that the project involved in delivering credits meet the criteria of additionality, permanence, leakage and double counting.

It also guarantee that the units were verified by an independent thid-partyand that the credits were only issued after the emission reduction has taken place.

Originating Project Name:

Gs2447 Gs1265 African Biomass Energy Conservation Poa Malawi Biomass Conservation”

Vintage Year: 2016

Quantity of retired GS VER credits: 164

Serial Number:GS1-1-MW-GS2447-16-2016-6766-12106-12269

Retirement Date: 27June 2022

Project ID: Gs2447 Gs1265

Project type: Energy Efficiency - Domestic

Country: Malawi

Retired on behalf of PT. HM Sampoerna - Sigaret Kretek Tangan (SKT) Rungkut-1 for offsetting unavoidable emissions, year 2021.



CERTIFICATE OF RETIREMENT

On behalf of:

PT Hanjaya Mandala Sampoerna, Tbk.
[ID SKT (Rungkut 1 SAMPOERNA)]

Certificate n. 1148

To compensate 164 tons. CO₂ eq. through the retirement of certified carbon credits from the project:

Name e Project ID	Type of Project and Country	Certification Standard	tCO ₂ eq.
African Biomass Energy Conservation (GS2447)	Energy Efficiency - Cookstoves (Malawi)	Gold Standard	164

Data: 27/06/2022 www.carbonsink.it *Andrea Maggiani*



We are delighted to confirm the retirement of
164 Verified Emission Reductions (VERs)
by
PMI
on 27/06/2022

Retired on behalf of PT Hanjaya Mandala Sampoerna, Tbk. [ID SKT (Rungkut 1 SAMPOERNA)] for offsetting unavoidable emissions, year 2021

*These credits have been retired, saving **164 tonnes** of CO2 emissions from being released into the atmosphere.
Thank you for investing in a safer climate and more sustainable world.*

[View retirement](#)

Gold Standard

Retiree's certificates are hosted on the Gold Standard Impact Registry. [view your certificate](#)

Gold Standard (PT) Berhad, 12, Jalan Yap Kwan Seng, 50450 Kuala Lumpur, Malaysia. www.goldstandard.org | Tel: +603-2010-8888. E-mail: info@goldstandard.org

<https://registry.goldstandard.org/batch-retirements/details/109467>

4.4 Compensation program for the second application period

For the second application period, PMI will cancel the volume of carbon credits required once the emission calculations are completed for this period. The volumes of credits required by PMI affiliates will be confirmed at later stage upon completion of the greenhouse gas inventory audit for this Application Period. The portfolio composition and share among projects will be determined based on the volume of credits.



5 Annex A – Carbon Neutral Assurance letter



**Verification Statement Number:
CCP278808/22/13/2022**

The Carbon Neutrality Declaration as presented in its Qualifying Explanatory Statement (QES), for the application period 01/01/2021 – 31/12/2021 of:

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

has been verified by SGS United Kingdom Limited as conforming to the requirements of PAS 2060:2014. Specification for the demonstration of carbon neutrality (PAS 2060).

Lead Assessor: Lisa Gibson
Technical Reviewer: Andrew James Collins

Authorised by:



Pamela Chadwick
Business Manager
SGS United Kingdom Ltd

Verification Statement Date: 6th July 2022

This Statement is not valid without the full verification scope, objectives, criteria and conclusion available on pages 2 to 3 of this Statement.



Schedule Accompanying Greenhouse Gas Verification Statement CCP278808/22/13/2022

Brief Description of Verification Process

SGS has been contracted by PT. HM Sampoerna - Sigaret Kretek Tangan (SKT) Rungkul-1 for the verification of their Carbon Neutrality Declaration as presented in its Qualifying Explanatory Statement (QES), for the application period 01/01/2021 – 31/12/2021, against the requirements of PAS 2060:2014. Specification for the demonstration of carbon neutrality (PAS 2060).

Roles and responsibilities

The management of PT. HM Sampoerna - Sigaret Kretek Tangan (SKT) Rungkul-1 is 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, preparation of reports, QES, and purchase and retirement of 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 01/01/2021 – 31/12/2021.

SGS conducted a third-party verification following the requirements of ISO 14064-3:2019 of the provided carbon neutral declaration and supporting QES during the period April – July 2022. The assessment was conducted via desk review. The verification was based on the verification scope, objectives and criteria as agreed between PT. HM Sampoerna - Sigaret Kretek Tangan (SKT) Rungkul-1 and SGS.

Objectives:

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

- That the carbon neutrality declaration and QES conform to the requirements of PAS 2060
- That the emissions data reported in the QES 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 QES including carbon offset purchases and retirements.

Level of Assurance

The level of assurance agreed is reasonable.

Scope

This engagement covers verification of:

- PT. HM Sampoerna - Sigaret Kretek Tangan (SKT) Rungkul-1
- The organizational boundary was established following the operational control consolidation approach.
- 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: Single facility, Indonesia
- First application period: Calendar Year 2021



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

Materiality

The materiality required of the verification was considered by SGS to be below 5%.

We planned and performed our work to obtain the information, explanations and evidence that we considered necessary to provide a reasonable level of assurance that the CO₂ equivalent emissions, carbon neutrality declaration and QES for the first period 01/01/2021 – 31/12/2021 are fairly stated.

SGS' approach is risk-based, drawing on an understanding of the risks associated with compiling and reporting GHG emission information and the controls in place to mitigate these risks. Our examination included assessment, on a sample basis, of evidence relevant to the voluntary reporting of emission information and carbon neutrality.

Conclusion

PT. HM Samporna - Sigaret Kretek Tangan (SKT) Rungtut-1 provided their carbon neutrality declaration based on the criteria outlined above. The carbon neutrality declaration and QES for the application period 01/01/2021 – 31/12/2021 are verified by SGS to a reasonable level of assurance, consistent with the agreed verification scope, objectives and criteria.

SGS concludes with reasonable assurance that the presented carbon neutrality declaration and supporting QES is materially correct and is a fair representation of the CO₂ equivalent data and information and conforms to the requirements of PAS2060:2014.

6 Annex B – Qualifying Explanatory Statements (QES) checklist



EHS.D.410.F02%20QE
S%20Check%20List%2

7 Annex C – 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	Excluded	Identified as below materiality threshold within the GHG inventory
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 7.1 - Inclusions and exclusions

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	$\frac{3}{4}$	$\frac{1}{4}$	1
CH ₄	Waste	$\frac{2}{3}$	$\frac{1}{3}$	1
CH ₄	Animals	25%	10%	20%
CH ₄	Animal waste	20%	10%	20%
N ₂ O	Industrial Processes	35%	35%	50%
N ₂ O	Agricultural Soils			2 orders of magnitude
N ₂ O	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 8.2 - IPCC uncertainty data

9 Annex E – Voluntary offset program

The project is developed in the north, center and south of Malawi and it promotes the introduction of improved cookstoves to enhance the living conditions of local people and mitigate the environmental impact. The distribution of efficient cookstoves will improve these people's living conditions, reducing the pollution deriving from the burning of woodfires and thus reducing the related diseases and injuries.

In this annex, specific project sheet concerning the chosen offsetting projects are presented.



210917 Rfp Carbon
Credits Portfolio Pmi.j

All the relevant project documentations can be found at the following link:

[GSF Registry \(goldstandard.org\)](https://registry.goldstandard.org)

[SustainCERT Platform \(sustain-cert.com\)](https://sustain-cert.com)

<https://registry.goldstandard.org/batch-retirements/details/109467>

10 Annex F – Renewable Energy Certificates

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





TIGRs
Tradable Instruments for Global Renewables



TIGR Registry Certificate of Retirement

APX, Inc., in its capacity as operator and administrator of the TIGR Registry, hereby certifies that the following Renewable Energy Certificates (“RECs”) have been retired in the TIGR Registry on behalf of:

PT. HM Sampoerna SKT Rungkut 1

Total RECs Retired: 70

Retirement Reason Details: Meet Carbon Neutrality Goals in 2021

Retirement Date: May 18, 2022

Sub-Account Name	Project Name	Project Type	TIGRs Serial Numbers	Quantity
PT. HM Sampoerna SKT Rungkut 1	PLTA Bakaru - Bakaru	Hydroelectric - Run-of-River	TIGR-1287-ID-SN-02-2021-7034-38853 to 38922	70

Retiring TIGRs Account Holder: PT PLN (Persero)

The Tradable Instrument for Global Renewables (TIGR) Registry is an online platform purpose built to meet RE100 best practices guidelines and CDP standards for procuring and reporting purchases of renewable energy. The Registry is developed and managed by APX, leveraging more than 15 years of experience in environmental markets. For more information: www.apx.com



APX
Energy. Environment. Market Insights.

Agung Sulistiyono

Manager Hand-Rolled Plant of SKT Rungkut 1

12.7.2022



END OF THE DOCUMENT