Qualifying Explanatory Statement

(As per PAS 2060)

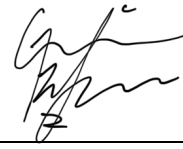
Document Preparation		
Function/Designation	Name	Signature
Operations Director	CK Remeena	
QA & EHS Officer	Gavin Rajkumar	

Version Control	
Description	Date
Published document	1/5/2023

Tobacco Importers and Manufacturers Sdn. Bhd. (TIM) – Johor Bahru Factory

Carbon Neutrality Statement in accordance to PAS 2060: 2014
"Qualifying Explanatory Statement"

"Carbon Neutrality for the industrial activities of Tobacco Importers and Manufacturers Sdn. Bhd. (TIM) – Johor Bahru Factory, declared in accordance with standard PAS 2060: 2014 on 28/02/2023, for the period from 1st December 2021 to 30th November 2022."

Name of the Representative(s)	Signature of the Representative(s)
CK Remeena – Operations Director	
30th January 2023	
Gavin Rajkumar - QA & EHS Officer	
30th January 2023	

Company: Tobacco Importers and Manufacturers Sdn. Bhd. (TIM) – Johor Bahru Factory

Issue Date: 28/02/2023

Other Party Validator: BSD Consultancy Sdn Bhd

Neutrality Report: 1st December 2021 to 30th November 2022

Note: the term "carbon" used throughout this document represents an abbreviation for the aggregate of greenhouse gases (GHG), reported as CO2e (carbon dioxide equivalent).

INTRODUCTION

This document is the declaration of carbon neutrality to demonstrate that Tobacco Importers and Manufacturers Sdn. Bhd. (TIM) – Johor Bahru Factory has achieved carbon neutrality, aligned to the guidelines of PAS 2060: 2014, for the reporting period of 1st December 2021 to 30th November 2022.

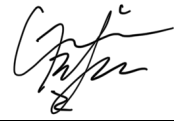
PAS 2060 Requirement	Explanation
Entity Responsible for the Declaration	Tobacco Importers and Manufacturers Sdn. Bhd. (TIM) – Johor Bahru Factory
Subject of Declaration	Operational activities of Tobacco Importers and Manufacturers Sdn. Bhd. (TIM) – Johor Bharu Factory
Subject Description	Tobacco Importers and Manufacturers Sdn. Bhd. (TIM) – Johor Bahru Factory
Subject Limits	The scope includes all Scopes I and II GHG emissions calculated as tCO2e, according to the GHG protocol accounting standards. The emission quantifications have been aligned to British American Tobacco (BAT), CR360 reporting other than fugitive emissions. Scope III emissions are excluded from this declaration.
Type of Assurance	Other Party Validation for obtaining Carbon Neutrality is validated by BSD Consultancy Sdn Bhd.
Period of obtaining Carbon Neutrality	1st December 2021 to 30th November 2022

This carbon neutrality statement is in accordance with PAS 2060: 2014, which contains information related to the subjects for which neutrality is claimed. All information contained is an expression of the truth and is believed to be correct at the time of publication. If any information comes to the attention of the organization that affects the validity of this declaration, this document will be properly updated to accurately reflect the actual situation of the carbon neutral process related to the subject.

DECLARATION OF OBTAINING CARBON NEUTRALITY

PAS 2060 Requirement	Explanation
Baseline Period	1st December 2019 to 30th November 2020
Achievement Period	1st December 2021 to 30th November 2022
Commitment Period	1st December 2022 to 30th November 2023
Specify the period in which the Company has demonstrated carbon neutrality for the subject.	1st December 2020 to 30th November 2022
Total emissions of the subject in the period from 1st December 2021 to 30th November 2022.	Total 70.103 tCO2e
Type of declaration of carbon neutrality.	OPV-1: Commitment to carbon neutrality through other-party validation.
Inventory of greenhouse gas emissions that provides the basis for the declaration.	Annex A: Inventory of Greenhouse Gas Emissions that Provide Basis for Declaration
Description of the greenhouse gas emission reductions that provide the basis for the declaration.	Annex B: Description of Reductions of Greenhouse Gas Emissions that Provide Basis for Declaration
Description of the instruments for reducing the carbon footprint and for offsetting residual emissions.	Annex C: Description of the Instruments for Reducing the Carbon Footprint and Compensating the Residual Emissions
Retirement Statement for Carbon Credits	Annex D: Retirement Statement for Carbon Credits
Validation Letter by Other-Party (OPV-1) – BSD Consultancy Sdn Bhd	Annex E: Validation Letter

"Carbon neutrality to demonstrate that Tobacco Importers and Manufacturers Sdn. Bhd. (TIM) – Johor Bahru Factory has achieved carbon neutrality, aligned to the guidelines of PAS 2060: 2014, in the period from 1st December 2021 to 30th November 2022."

Name of the Senior Representative	Signature of the Senior Representative
CK Remeena – Operations Director	
30th January 2023	
Gavin Rajkumar - QA & EHS Officer	
30th January 2023	

ANNEX A - INVENTORY OF GREENHOUSE GAS EMISSIONS THAT PROVIDE BASIS FOR DECLARATION

A.1. Subject Description

Tobacco Importers and Manufacturers Sdn. Bhd. (TIM) – Johor Bahru Factory is a subsidiary of British American Tobacco Malaysia (BAT) Group registered in Malaysia with specific business operation objectives such as the secondary manufacturing and storage. Distribution will be handled by another subsidiary company under BAT Malaysia. It operates an operational business unit in Johor.

TIM Johor Bahru Factory is a secondary manufacturing unit that manufactures, stores finished-good cigarettes, and imports tobacco raw materials. The manufacturing process includes feeding fibres of tobacco, filters, and cigarette papers into machines to produce the final products. The final products are then wrapped with packaging film and boxed in cartons. Boxes of finished goods will be stored before it is distributed.

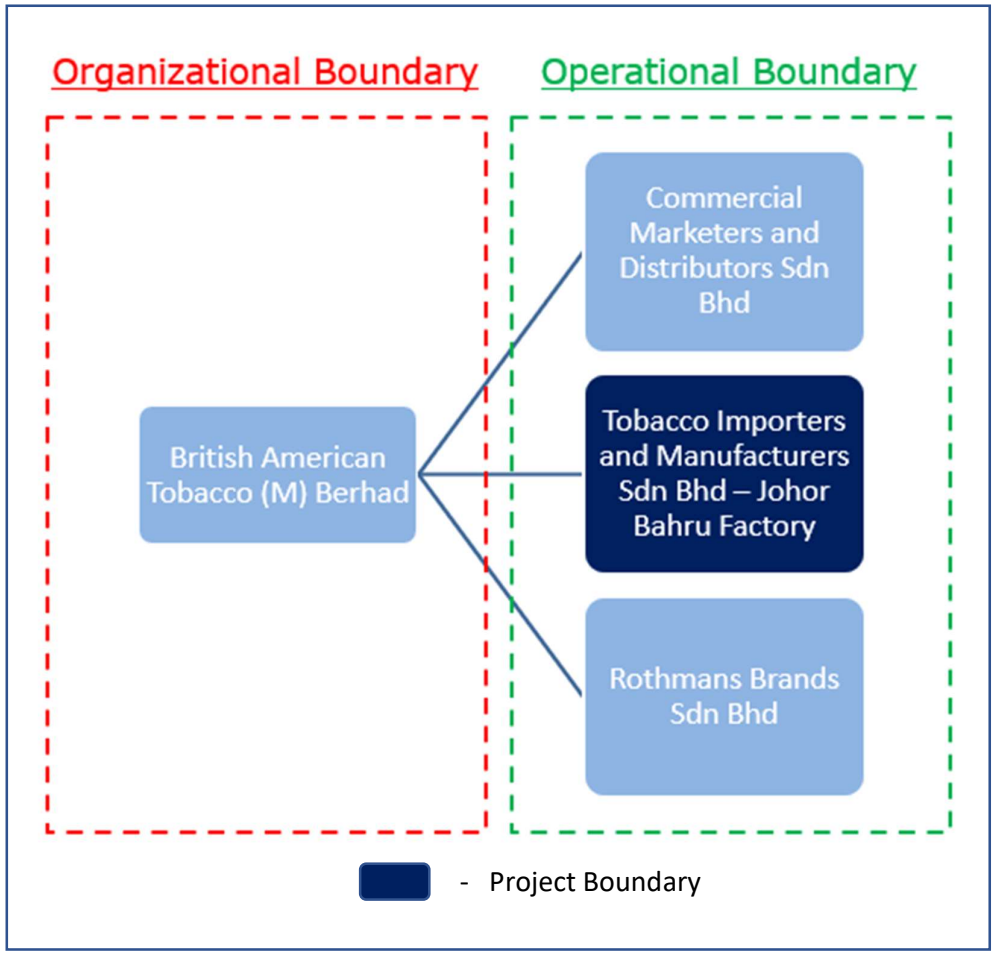


Figure 01: TIM – Johor Bahru Factory within Organizational Chart

The scopes included and excluded from the project boundary are detailed in Figure 02.

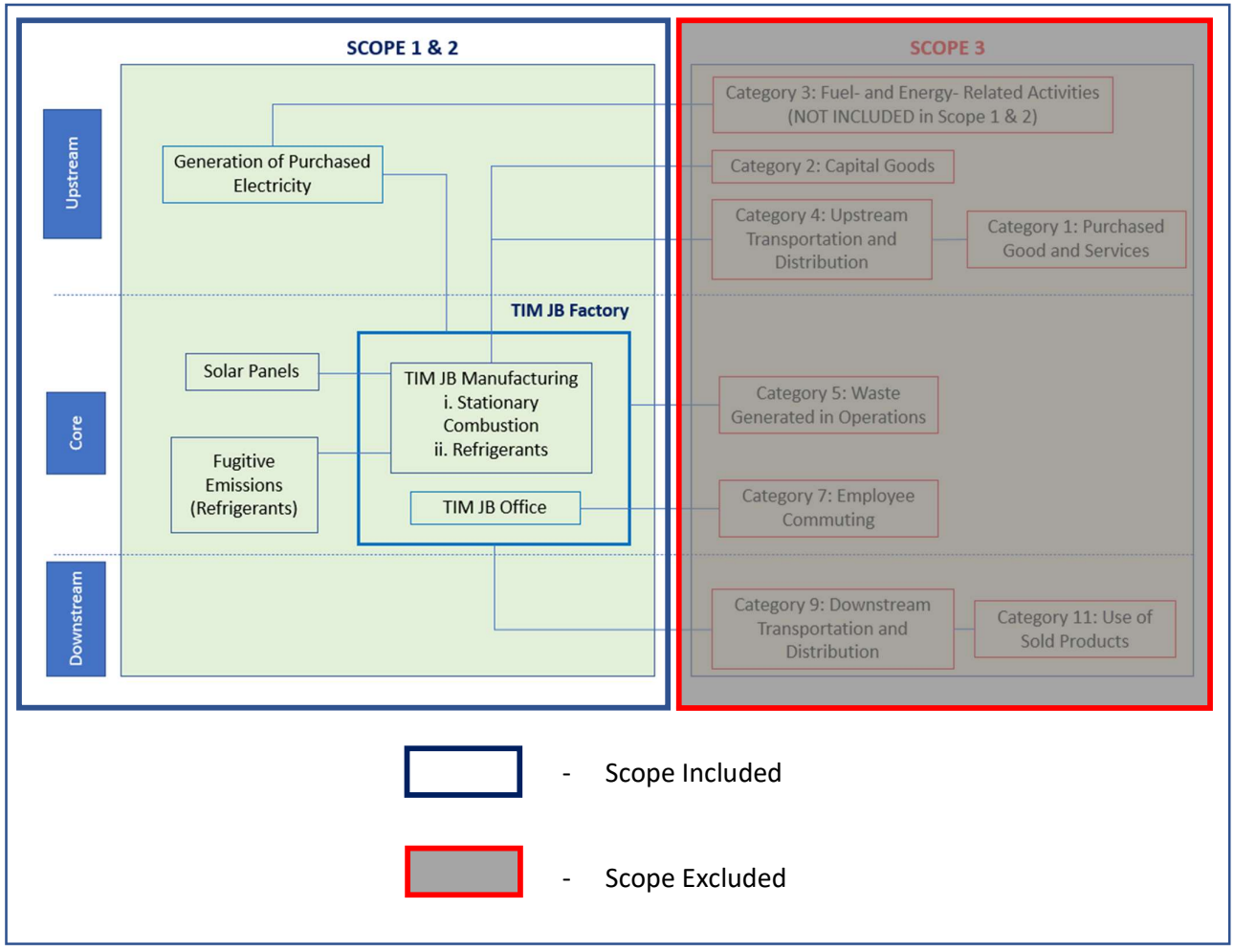


Figure 02: Scopes Included within QES Declaration

A.2. Carbon Footprint Summary

Considering each source of emissions which fall under scopes I & II, the fugitive sources have been calculated in the tables below.

Table 01: Fugitive (Direct) – Carbon Emissions

Emission Source	Fugitive Emissions		TIM JB Factory - Overall Emissions (Location-Based Method)	TIM JB Factory - Overall Emissions (Market-Based Method)
	Scope I	Scope II	tCO2e	tCO2e
Refrigerant (R22 – 3kg) *	√		5.430	5.430
Fire Extinguishers	√		0.000	0.000
Total	**√**		**5.430**	**5.430**

* The conversion factor of the refrigerant (from kg to tCO2e) is detailed in *A.3.3 (Table 05)*

Table 02: Energy – Carbon Emissions

Emission Source/Sink	Emission Type		Energy Consumption	TIM JB Factory – Overall Emissions (Location-Based) [0.585 tCO2e/MWh] *	TIM JB Factory – Overall Emissions (Market-Based) [0.6649 tCO2e/MWh] *
	Scope I	Scope II	MWh	tCO2e	tCO2e
[1] Total energy produced from on-site solar system	√		59.315	-34.699	-39.439
[2] On-site energy consumption from on-site solar system	√		33.252	19.452	22.109
[3] Energy exported from the on-site solar system to the grid	√		26.063	15.247	17.329
[4] Energy imported from the grid		√	123.330	72.148	82.002
[5] Total Energy Consumption = [2] + [4]	√	√	156.582	91.600	104.111
Scope 1 (Energy) = [2] + [3] - [1]	√		**0.000**	**0.000**	**0.000**
Scope 2 (Energy) = Net-Grid Connected Electricity Consumption = [4] - [3]		√	**97.267**	**56.901**	**64.673**

* The sources of Location-based and Market-based electricity (from MWh to tCO2e) is detailed in *A.3.3 (Table 06)*

Referring to Table 02, the total energy consumption at TIM – Johor Bahru Factory is tabulated and amounts to 156.582 MWh for this reporting period. This value is the sum of the total energy imported from the grid (123.330 MWh) and the energy consumption from the on-site PV panel system (33.252 MWh). The PV system is the Net-Energy Metering (NEM) type, which permits the energy that is unused and exported to the grid to offset the total energy imported. With a total of 26.063 MWh exported, the net grid consumption tallies at 97.267 MWh, which equates to 64.673 tCO2e via the market-based methodology.

In relation to scopes I and II emissions, the summarized overall emission of TIM – Johor Bahru Factory, can be mentioned as given in Table 03.

Table 03: TIM Johor Bahru Factory Overall Carbon Emissions

Method	Emission Type		TIM JB Factory – Overall Emissions
	Scope I	Scope II	tCO2e
Location-based	√		5.430
Location-based		√	56.901
Total Location-based	√	√	**62.331**
Market-based	√		5.430
Market-based		√	64.673
Total Market-based (Selected for Reporting Use)	√	√	**70.103**

The tCO2e quantities tabulated via the Market-based approach will be used as the basis to offset and declare carbon neutral status.

A.3. Standards and Methodologies Used

A.3.1. Reporting Period Covered and Frequency of Internal Reporting

BAT annual reporting (in CR360) considers the period from December previous year to November current year. Accordingly, the base period considered for emissions inventory and carbon neutrality verification is from 1st December 2019 to 30th November 2020. The internal reporting of environmental parameters is carried out on a quarterly basis as detailed in the Table 04.

Table 04: GHG Reporting Timeframe

Reporting Period	Reporting Month
December – February (Q1)	March
March – May (Q2)	June
June – August (Q3)	September
September – November (Q4)	December

A.3.2. Report Standards and Scope

The Credit360 Tool is published by UL LLC, and quantifies the GHG emissions associated with the selected boundary, using data representing operations between 1st December 2021 and 30th November 2022. The quantification is based on GHG Protocol recommended methods. This method was chosen as it provides an internationally recognised approach to the calculation of representative CO_2e footprints and meets the requirements of PAS 2060. Credit 360 tool was used for environmental data management to track the carbon footprint. The CO2e footprints have been reviewed and assured by a third-party, BSD Consultancy Sdn Bhd.

The focus is on Scope I and II only. TIM – Johor Bahru Factory is a secondary manufacturing plant, therefore it does not involve any combustion in the processes. Additionally, there is no finished goods logistics service as this is done by a third-party company. The only sources of scope I emissions were from air-conditioning refrigerant leakage and fire-extinguishers, while the scope II is based on the electricity bill (Grid supplied electricity is from Tenaga Nasional Berhad (TNB) Malaysia) for the site for the entire reporting period. The solar panels installed and energized in the Year 2022 will be directly utilized on site, with the remaining unused generated solar energy exported back to the grid within the Net Energy Metering (NEM) Program. This program permits the exported energy that was generated from on-site solar PV system to offset and reduce the final electricity bill.

The location-based method is based on grid-average emissions factor data and reflects the average emissions intensity; while the market-based method reflects emissions selected by the reporting company due to lack of data. For the case of TIM – Johor Bahru Factory, the market-based method is selected for the energy conversion to tCO2e based on the Credit360 value for the Year 2022.

The footprint resulted in absolute terms of 70.103 tonne CO2e per year for the scope I and scope II carbon emissions only. This included all annual consumption data of operational activities such as electricity consumption and fuel consumption for Year 2022. The largest emissions were due to Scope II emissions - Electricity Consumption. GHG emissions accounted for in the study are based on the 100-year Global Warming Potential (GWP) figures published, and include those required by the GHGP Product Standard, which specifies emissions to and removals from the atmosphere.

Only scope 1 and 2 emissions relevant to the scope are included in the footprint. **Scope 3 is not included in the scope**. Offsetting has not been included in the calculations.

- Direct Emissions – (direct emissions from operational activities)
  - Stationery Emissions- Project has no stationery emissions.
  - Mobile Emissions – Project has no mobile emissions.
  - Emissions from fugitive sources – Refrigerants only.

- Indirect Emissions – (indirect emissions from imported sources)
  - The emissions from imported energy (grid electricity)

A.3.3. Selection of Quantification Approach

The data inventories maintained by TIM – Johor Bahru Factory on GHG emission sources and standard conversion factors derived as per BAT referred international reporting standards are used in modelling the CO_2 quantities emitted from each source that are considered as direct and indirect categories.

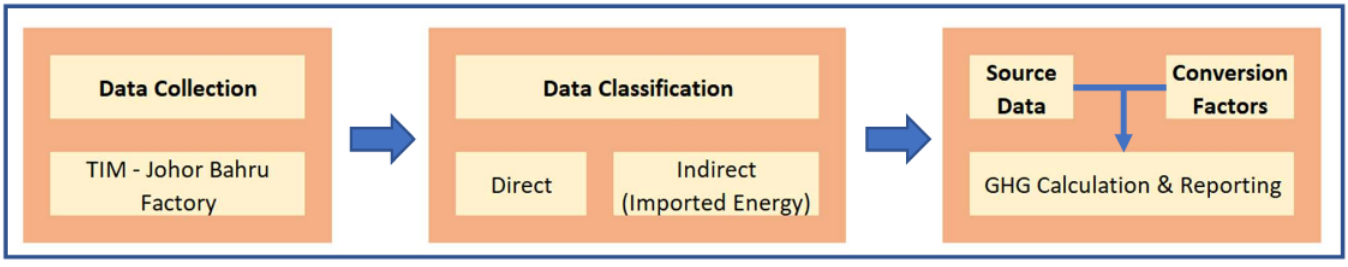


Figure 03: GHG Calculation Approach and Steps

The emission related data collection is carried out on a monthly basis covering all sites and operations under TIM – Johor Bahru Factory. The data collected is categorised under one of the two scopes illustrated in Figure 03, in which the direct emissions are reported under Scope I, and indirect imported energy as electricity is reported under scope II.

GHG Emissions Quantification

The tCO2e emissions quantified separately for each source, in tonnes of CO_2e based on TIM – Johor Bahru Factory specified factors mentioned in below table.

Table 05: Direct stationery source to tCO2e and GJ conversion factors

Direct – Fugitive Sources (DEFRA / BEIS 2020 v 1.0)			
Gas Type	Unit	100-year GWP – IPCC Fourth Assessment Report (AR4)[1]	Conversion of GWP to tCO2e: Weight [kg] / 1000 * GWP
Refrigerant – R22 (3kg)	**tCO2e**	**1810**	**3 / 1000 * 1810 = 5.430**

[1] Emissions factor for the refrigerant referred from EPA Greenhouse Gas Inventory Guidance: Fugitive Emissions official published data

Table 06: Indirect Imported Energy to tCO2e conversion factors

Indirect – Imported Energy			
Country	Conversion to tCO2e	2019 (Location-Based) [2]	2022 (Market-Based) [3]
Malaysia	**tCO2e/MWh**	**0.585**	**0.6649**

[2] Malaysia Grid-Emission (Location-based) referred from CDM Electricity Baseline For Malaysia

[3] Emission factors for the electricity follow the Credit 360 Emissions Factor

The usage data of all relevant energy sources are collected from the sources as per below table from different areas of concern are detailed on a monthly basis. These data are uploaded in the BAT CR360 system and amalgamation with the above-mentioned conversion factors where the tCO2e emissions are calculated. Other data not reported in the CR 360 system and relevant emissions are calculated manually using the conversion factors obtained referring to the same standards.

Table 07: Fuel consumption data collection sources

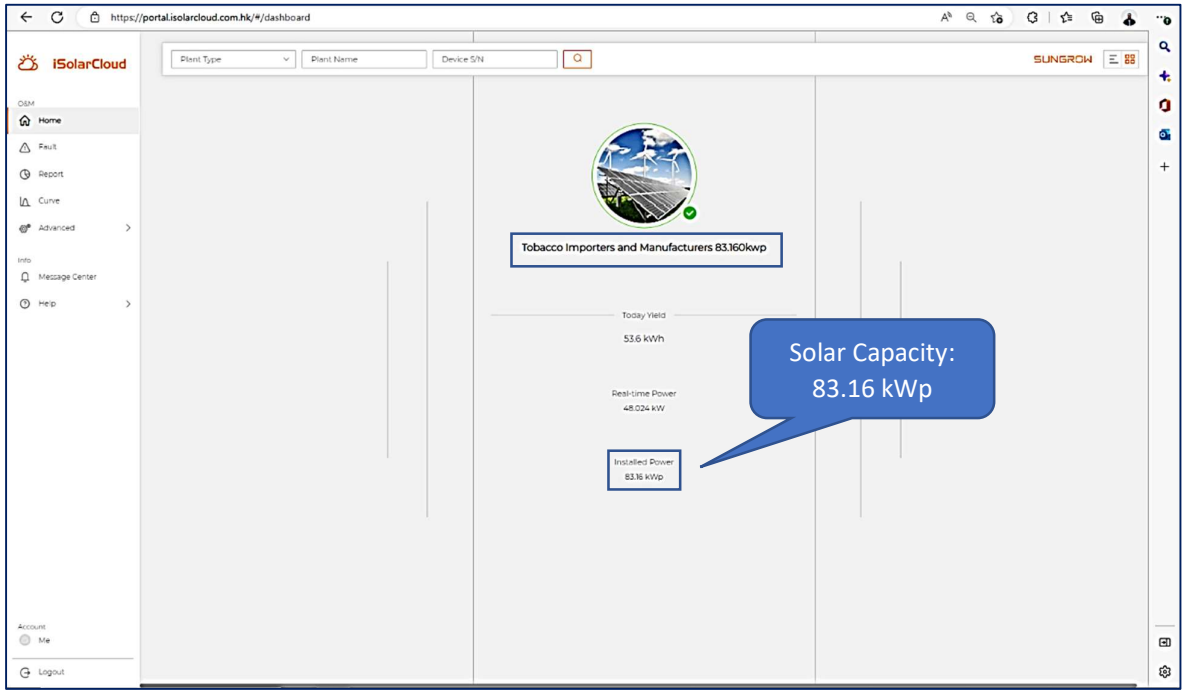
Fuel Type/Emission Source	Data Collection Sources
Refrigerant	Records of refilled or replaced refrigerant gases of air conditioners
Fire Extinguishers	Refilling or replacement records of CO_2 extinguishers
Electricity	Energy utility bills

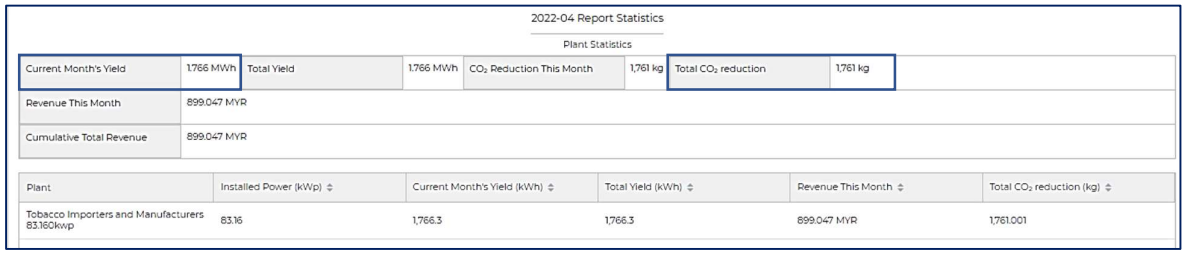
The applicability of the inventory of emissions and sinks are illustrated in the Table 08 below.

Table 08: Stationary & Direct Emission/Sink Activities

Source of Emissions	Applicability
	TIM – JB Factory
Site and office diesel	X
Boiler furnace fuel	X
Site and office petrol	X
Site and office biomass	X
Site and office LPG	X
Fleet vehicle diesel	X
Fleet and office petrol	X
Refrigerant	√
Workshop Acetylene	X
Fire extinguishers	√
ETP water treatment	X
Source of Sinks	**Applicability**
	TIM – JB Factory
On-site solar generation	√

Detailed below are the supporting documents for the sources of direct emissions: -



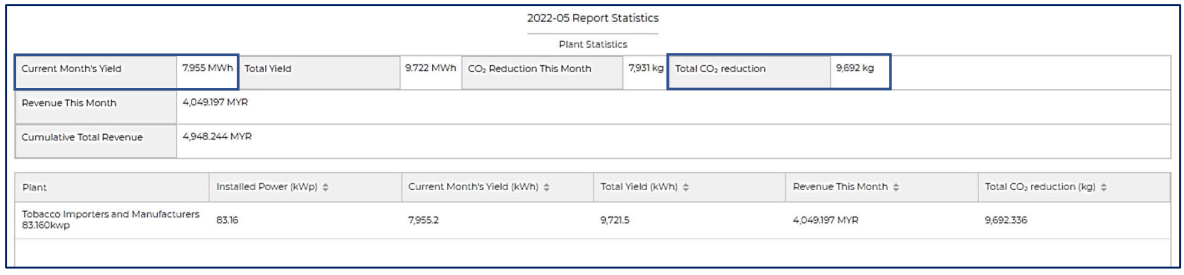


2022-04 Report Statistics

Plant Statistics

Current Month's Yield	1,766 MWh	Total Yield	1,766 MWh	CO_2 Reduction This Month	1,761 kg	Total CO_2 reduction	1,761 kg
Revenue This Month	899.047 MYR						
Cumulative Total Revenue	899.047 MYR						

Plant	Installed Power (kWp)	Current Month's Yield (kWh)	Total Yield (kWh)	Revenue This Month	Total CO_2 reduction (kg)
Tobacco Importers and Manufacturers 83.160kwp	83.16	1,766.3	1,766.3	899.047 MYR	1,761.001

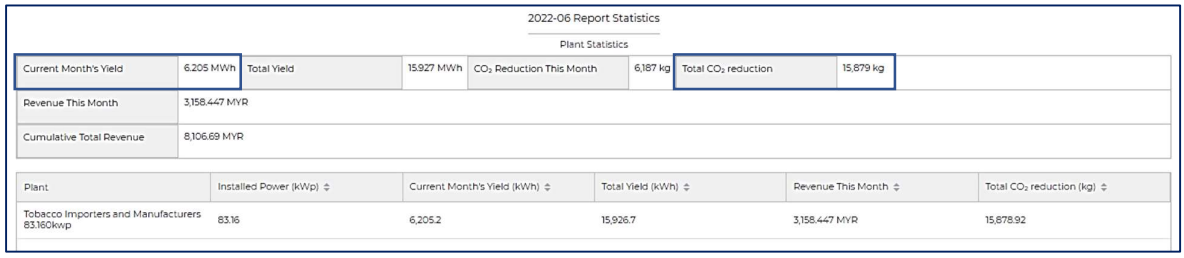


2022-05 Report Statistics

Plant Statistics

Current Month's Yield	7,955 MWh	Total Yield	9,722 MWh	CO_2 Reduction This Month	7,931 kg	Total CO_2 reduction	9,692 kg
Revenue This Month	4,049.197 MYR						
Cumulative Total Revenue	4,948.244 MYR						

Plant	Installed Power (kWp)	Current Month's Yield (kWh)	Total Yield (kWh)	Revenue This Month	Total CO_2 reduction (kg)
Tobacco Importers and Manufacturers 83.160kwp	83.16	7,955.2	9,721.5	4,049.197 MYR	9,692.336



2022-06 Report Statistics

Plant Statistics

Current Month's Yield	6,205 MWh	Total Yield	15,927 MWh	CO_2 Reduction This Month	6,187 kg	Total CO_2 reduction	15,879 kg
Revenue This Month	3,158.447 MYR						
Cumulative Total Revenue	8,106.69 MYR						

Plant	Installed Power (kWp)	Current Month's Yield (kWh)	Total Yield (kWh)	Revenue This Month	Total CO_2 reduction (kg)
Tobacco Importers and Manufacturers 83.160kwp	83.16	6,205.2	15,926.7	3,158.447 MYR	15,878.92

Figure 04: Solar Yield Table Printed from iSolarCloud Dashboard*
(Main Page, and Data: April 2022 to June 2022)
**Source: https://www.isolarcloud.com.hk/?lang=en_US*

2022-07 Report Statistics

Plant Statistics

Current Month's Yield	9,134 MWh	Total Yield	25.06 MWh	CO_2 Reduction This Month	9,106 kg	Total CO_2 reduction	24,985 kg
Revenue This Month	4,649.053 MYR						
Cumulative Total Revenue	12,755.744 MYR						

Plant	Installed Power (kWp)	Current Month's Yield (kWh)	Total Yield (kWh)	Revenue This Month	Total CO_2 reduction (kg)
Tobacco Importers and Manufacturers 83.160kwp	83.16	9,133.7	25,060.4	4,649.053 MYR	24,985.219

2022-08 Report Statistics

Plant Statistics

Current Month's Yield	8,339 MWh	Total Yield	33.399 MWh	CO_2 Reduction This Month	8,314 kg	Total CO_2 reduction	33,299 kg
Revenue This Month	4,244.398 MYR						
Cumulative Total Revenue	17,000.142 MYR						

Plant	Installed Power (kWp)	Current Month's Yield (kWh)	Total Yield (kWh)	Revenue This Month	Total CO_2 reduction (kg)
Tobacco Importers and Manufacturers 83.160kwp	83.16	8,338.7	33,399.1	4,244.398 MYR	33,298.903

2022-09 Report Statistics

Plant Statistics

Current Month's Yield	8,479 MWh	Total Yield	41.878 MWh	CO_2 Reduction This Month	8,453 kg	Total CO_2 reduction	41,752 kg
Revenue This Month	4,315.709 MYR						
Cumulative Total Revenue	21,315.851 MYR						

Plant	Installed Power (kWp)	Current Month's Yield (kWh)	Total Yield (kWh)	Revenue This Month	Total CO_2 reduction (kg)
Tobacco Importers and Manufacturers 83.160kwp	83.16	8,478.8	41,877.9	4,315.709 MYR	41,752.266

2022-10 Report Statistics

Plant Statistics

Current Month's Yield	9,124 MWh	Total Yield	51.002 MWh	CO_2 Reduction This Month	9,097 kg	Total CO_2 reduction	50,849 kg
Revenue This Month	4,644.371 MYR						
Cumulative Total Revenue	25,960.222 MYR						

Plant	Installed Power (kWp)	Current Month's Yield (kWh)	Total Yield (kWh)	Revenue This Month	Total CO_2 reduction (kg)
Tobacco Importers and Manufacturers 83.160kwp	83.16	9,124.5	51,002.4	4,644.371 MYR	50,849.393

2022-11 Report Statistics

Plant Statistics

Current Month's Yield	8,314 MWh	Total Yield	59.316 MWh	CO_2 Reduction This Month	8,289 kg	Total CO_2 reduction	59,138 kg
Revenue This Month	4,231.775 MYR						
Cumulative Total Revenue	30,191.997 MYR						

Plant	Installed Power (kWp)	Current Month's Yield (kWh)	Total Yield (kWh)	Revenue This Month	Total CO_2 reduction (kg)
Tobacco Importers and Manufacturers 83.160kwp	83.16	8,313.9	59,316.3	4,231.775 MYR	59,138.351

2022-12 Report Statistics

Plant Statistics

Current Month's Yield	7,772 MWh	Total Yield	67.088 MWh	CO_2 Reduction This Month	7,749 kg	Total CO_2 reduction	66,887 kg
Revenue This Month	3,955.948 MYR						
Cumulative Total Revenue	34,147.945 MYR						

Plant	Installed Power (kWp)	Current Month's Yield (kWh)	Total Yield (kWh)	Revenue This Month	Total CO_2 reduction (kg)
Tobacco Importers and Manufacturers 83.160kwp	83.16	7,772	67,088.3	3,955.948 MYR	66,887.035

Figure 04: Solar Yield Table Printed from iSolarCloud Dashboard (Cont.)*
(Data: July 2022 to November 2022)
**Source: https://www.isolarcloud.com.hk/?lang=en_US*

DATE:05-10-2022	SERVICE & MAINTENANCE CHECK LIST		PAGE : 1

RE: FIRE EXTINGUISHER REPORT

NO	LOCATION	Manufacture Year	Licences	Monthly Report		
				Pressure	Spare Parts	Pyhsical
UF082015Y989004	OFFICE 1	2015	05-11-22	OK	OK	OK
UF082015Y988739	OFFICE 2	2015	05-11-22	OK	OK	OK
UF062018Y976089	PRODUCTION 1	2018	05-11-22	OK	OK	OK
UF062018Y976089	PRODUCTION 2	2018	05-11-22	OK	OK	OK
UF062018Y974587	PRODUCTION 3	2018	05-11-22	OK	OK	OK
UF082015Y988935	PRODUCTION 4	2015	05-11-22	OK	OK	OK
UF062018Y976585	PRODUCTION 5	2018	05-11-22	OK	OK	OK
UF082015Y988019	PRODUCTION 6	2015	05-11-22	OK	OK	OK
UF082015Y944148	PRODUCTION 7	2015	05-11-22	OK	OK	OK
UF082015Y988124	PRODUCTION 8	2015	05-11-22	OK	OK	OK
UF062018Y974951	PRODUCTION 9	2018	05-11-22	OK	OK	OK
EE062017Y553932	OFFICE 3	2017	05-11-22	OK	OK	OK
EE032020Z012754	OFFICE 1	2020	05-11-22	OK	OK	OK
EE032020Z012831	OFFICE 2	2020	05-11-22	OK	OK	OK
EE032020Z012907	PRODUCTION 1	2020	05-11-22	OK	OK	OK
EE032020Z012796	PRODUCTION 2	2020	05-11-22	OK	OK	OK
EE032020Z012615	PRODUCTION 3	2020	05-11-22	OK	OK	OK
EE032020Z012395	PRODUCTION 4	2020	05-11-22	OK	OK	OK
EE032020Z012271	PRODUCTION 5	2020	05-11-22	OK	OK	OK

Remark: ALL FIRE EXTINGUISHER IN GOOD CONDITION

Prepared by:CONTRACTOR

JEBSON ENGINEERING SERVICES SDN BHD

JEBSON ENGINEERING SERVICES SDN BHD

Name:

Date: 5/10/22

Attandance :

Name:

Date:

Figure 05: Fire Extinguisher Report

NUSAJAYA ELECTRICAL & INDUSTRIAL SDN BHD
90 & 92, JALAN ROSMERAH 2/17, TAMAN JOHOR JAYA, 81100 JOHOR BAHRU, JOHOR.

T: 07-3610988 F: 07-3644400

SERVICE / DELIVERY ORDER

No. : 31230
Date : 12/10/2022
Quot. No. : ZS/QT/0930/31230
P/O Ref. :
Technician : 01 [illegible]
Page : 1 / 2

No.	Description	Quantity
	AIR-COND MAINTENANCE SERVICE AT NO. 4, JLN TEKNOLOGY PERINTIS 1/2, TMN TEKNOLOGY NUSAJAYA FOR TOBACCO	
	To dismantle & do chemical overhaul service c/w reinstall, vacuum, charge gas and test run for the followings :-	
1	1 unit of 4.0hp cassette type for meeting room	1 unit
2	1 unit of 5.0hp cassette type for general office.	1 unit
	REMARKS :- - Both units after chemical service, test run in good conditions.	
	To check c/w general service for the followings unit :-	
3	2 units of 1.0hp wall mounted type at Server room.	2 units
4	1 unit of 2.5hp wall mounted type at general office	1 unit
5	2 units of 4.0hp ducted type at Production area.	2 units
6	1 unit of 50hp aircooled chiller unit c/w 2 units of AHU unit and strainer.	1 unit
	REMARKS :- 1) All the units after servicing and tested in good conditions. 2) Excluded the 2.5hp wall mounted type at general office area gas leak, to top up the refrigerant gas from 15 psi to 70 psi, try to check the leak point at unit, but leak point unfound, suspected the leak point at refrigerant pipe.	

NUSAJAYA ELECTRICAL & INDUSTRIAL SDN BHD
NEI

Figure 06: Air-Cond Maintenance Service

A.4. Site Level tCO2e

The categorisation of GHG emissions under each reporting entity in the scopes of direct and indirect can be illustrated as below.

Table 09: Emission Sources and tCO2e emissions

Emission Source	PAS 2060		tCO2e from Dec 2021 to Nov 2022 (Market-Based) - Malaysia
	Scope I	Scope II	TIM – Johor Bahru Factory
Refrigerant	√		5.430
Fire Extinguishers	√		0.000
Electricity Used from On-Site Solar System	√		22.109
Electricity Exported to Grid from On-Site Solar System	√		17.329
Total Direct Sources (Scope I Only)	√		**44.868**
Net Grid Electricity Consumption		√	64.673
Total Indirect Sources (Scope II Only)		**√**	**64.673**
Total Direct and Indirect Sources	√	√	**109.541**

Table 10: Emission Sinks and tCO2e emissions

Emission Sinks	PAS 2060		tCO2e from Dec 2021 to Nov 2022 (Market-Based) - Malaysia
	Scope I	Scope II	TIM – Johor Bahru Factory
Solar Generation from On-Site Solar System	√		-39.439
Total Direct Sinks	√		**-39.439**

Table 11: Site wise tCO2e market-based approach

Overall Emissions	PAS 2060		tCO2e from Dec 2021 to Nov 2022 (Market-Based)
	Scope I	Scope II	TIM – Johor Bahru Factory
Total Scope I (Sources)	√		44.868
Total Scope I (Sinks)	√		-39.439
Total Scope II		√	64.673
Total Scope I & II	**√**	**√**	**70.103**

Note: The usage data of all relevant information are collected from the **sources detailed in Table 05 and Table 06**. These data are uploaded in the BAT CR360 system and amalgamation with the above-mentioned conversion factors where the tCO2e emissions are calculated. Other data not reported in the CR360 system and relevant emissions are calculated manually using the conversion factors obtained referring to the same standards.

ANNEX B - DESCRIPTION OF REDUCTIONS OF GREENHOUSE GAS EMISSIONS THAT PROVIDE BASIS FOR DECLARATION

B.1. History of Greenhouse Gas Emissions (GHG)

TIM – Johor Bahru Factory has been tracking and reporting its energy consumptions since 2019, with continuous efforts to improve its reporting standards and quality of data reported. The reporting is carried-out on a quarterly basis, with better tracking of related issues to ensure improved reporting quality.

The reporting period remains the same, from 1st December previous year to 30th November of the current year. However, the **baseline period** for this QES declaration for Year 2022 will be amended to **1st December 2019 to 30th November 2020**. The last updated emission factor provided by BAT from credible sources was used in calculating the tCO2e. The evolution of emission under each reporting entities are included in section B.2. of this report.

B.2. Description of GHG Emissions Reduction in Reference Year

Striving towards BAT's purpose of creating A Better Tomorrow™, TIM – Johor Bahru Factory has declared the organizational commitment of driving a sustainable business agenda through its environmental policy statement signed-off by the executive committee. The policy statement clearly sets the aims and key focus areas of the sustainable agenda.

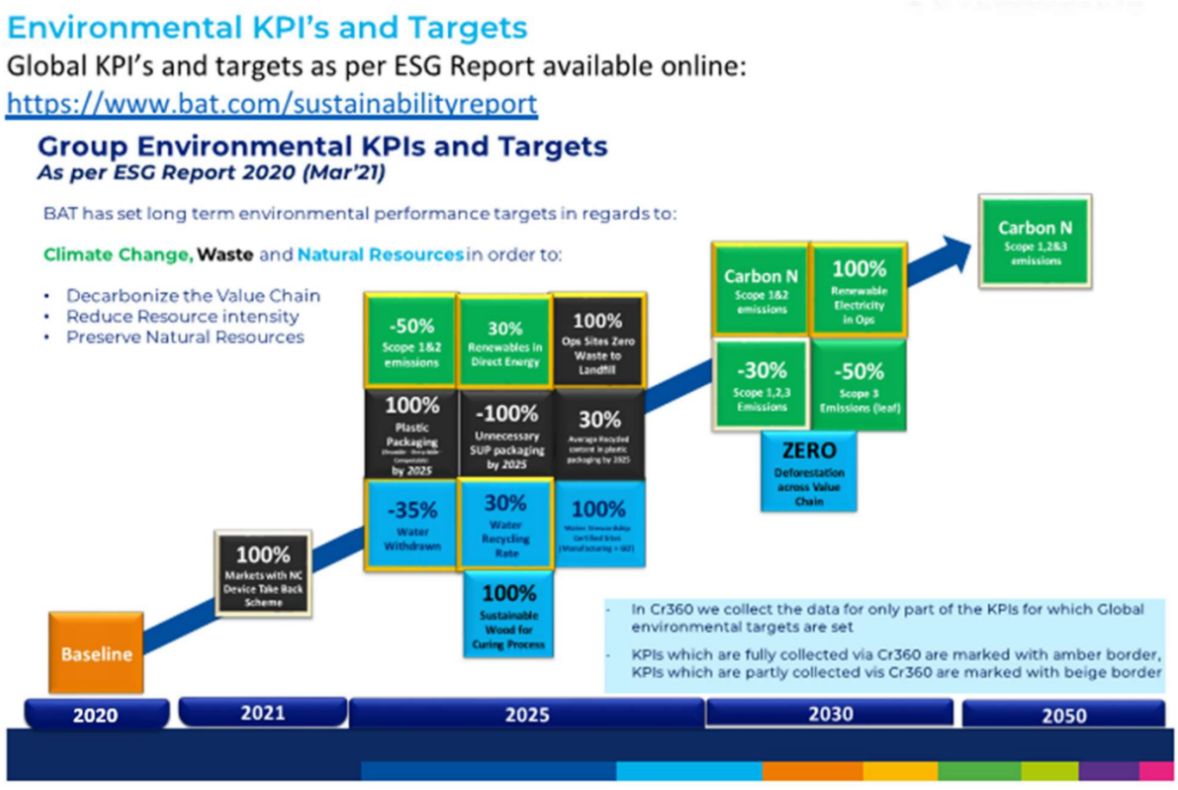


Figure 07: Global KPI's and Targets

Within Figure 07, the following actions and targets are detailed:-

Short Term Action – 2 years to 5 years

- Upgrading of machine capability to reduce waste generation and improve efficiency and waste reduction from factory by addressing material short stops.
- Reduce absolute volume of waste generated by 15% by 2025.
- 100% zero waste to landfill by 2025.
- Implementation of tobacco waste composting to be used as fertilizer / fish food.
- Recycle at least 95% of total waste generated each year.
- By 2022, at least 50% of energy to be from renewable sources .

Medium Term Action – 5 years to 10 years

- By 2030, to use 100% renewable energy.

Long Term Action – more than 10 years

- By 2050, to be Net-Zero.

The sustainability strategy of TIM Johor Bahru Factory has been laid down to achieve the sustainability goals and set targets detailed in Figure 07. The specific KPIs have been set to ensure the company is headed in the right direction by implementing the following sustainable strategies comprising of key components such as;

- Regular monitoring and continuous interventions,
- Efficiency improvements focus on current setup,
- Reporting of performance and monitoring against KPIs,
- Sustainability culture and individual ownership.

The execution of the first two elements of the strategy and the positive impact created in energy saving and emission reduction are elaborated henceforth.

B.2.1. Reduction though Regular Monitoring and Continuous Interventions

TIM – Johor Bahru Factory representatives attend a monthly meeting to discuss and review the progress of the action plan. With good environmental management, TIM – Johor Bahru Factory has begun to address its energy, water, and waste impact because of the environmental benefits, financial savings, and improvement of efficiencies. TIM – Johor Bahru Factory is focused on minimizing their climate change impact by accelerating the reduction of carbon dioxide equivalent (tCO_2e). These efforts are in-line with BAT Malaysia's commitment to science-based targets (SBTi). TIM – Johor Bahru Factory monitors their environmental data via the Credit360 tool. The subscription to Credit360 platform used to track carbon emission will be a permanent subscription and this will help to act as part of the technique to maintain the effort. A screenshot of the monitoring efforts for Year 2022 is attached in Figure 08.

For the first year of operation, Year 2019, TIM – Johor Bahru Factory identified the building energy consumption baseline. Various initiatives were exercised on site for the following consecutive years since the start of operations at TIM – Johor Bahru Factory. Some key initiatives done are the migration to greener energy, rescheduling of production shift, installation of on-site solar panels, and waste reduction, recycle, and incineration. For Year 2022, metering of the individual zones was implemented on site. The demarcation of the different zones is shown in Figure 09.

EHS REPORT (JB FACTORY)

Year: 2022
Site: JB

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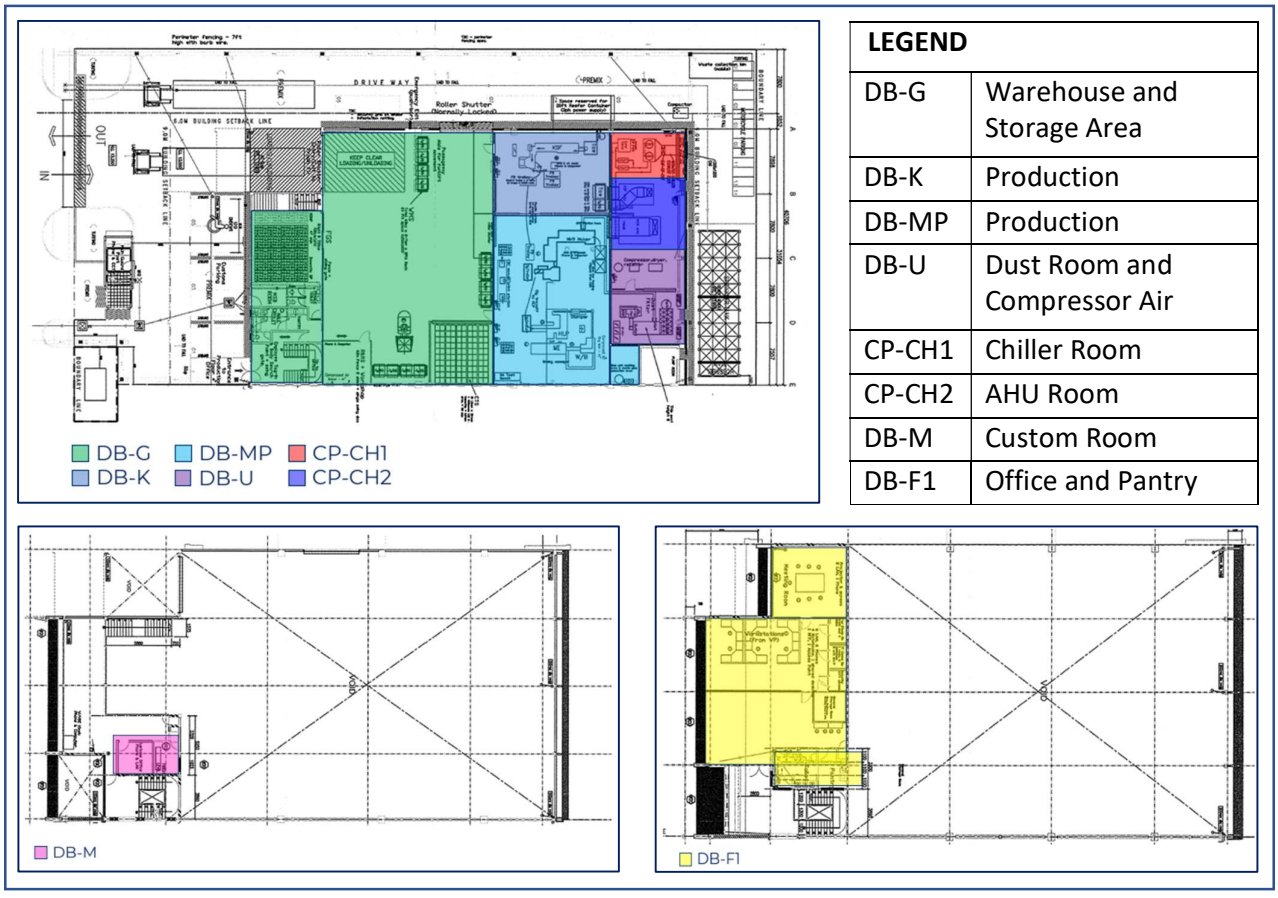
	Data	U/M	Dec 21	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Energy														
Energy	Electrical energy index	GJ/million	7.18	5.03	9.30	7.95	10.68	4.80	4.30	4.74	5.90	7.79	4.71	4.14
	Renewable Energy Percentage	%					12%	31%	22%	38%	34%	32%	33%	32%
	Electricity (Operation)(Import)	kWh	11,581	14,136	7,237	12,741	7,477	7,537	11,731	7,387	10,286	15,169	8,047	10,001
		GJ	42	51	26	46	27	27	42	27	37	55	29	36
	Electricity (Operation)(Solar Generated)	kWh					1,766	7,955	6,205	9,134	8,339	8,479	9,125	8,313
		GJ					6	29	22	33	30	31	33	30
	Electricity (Operation) (Solar Export)	kWh					761	4,628	2,979	4,642	3,027	1,320	5,145	3,561
		GJ					3	17	11	17	11	5	19	13
	Electricity (Operation) (Solar Used)	kWh					1,005	3,327	3,226	4,492	5,312	7,159	3,980	4,752
		GJ					4	12	12	16	19	26	14	17
	Total Electricity Used	kWh	11,581	14,136	7,237	12,741	8,482	10,864	14,957	11,879	15,598	22,328	12,027	14,753
		GJ	42	51	26	46	31	39	54	43	56	80	43	53

Figure 08: KPI Tracking Against Targets at TIM – Johor Bahru Factory for Energy Usages



LEGEND	
DB-G	Warehouse and Storage Area
DB-K	Production
DB-MP	Production
DB-U	Dust Room and Compressor Air
CP-CH1	Chiller Room
CP-CH2	AHU Room
DB-M	Custom Room
DB-F1	Office and Pantry

Figure 09: DB Monitoring Zones (Ground Floor)

B.2.2. Reduction from Efficiency Improvement Focus

This component of the strategy has been focused on eliminating inefficiencies discovered in the current system through focused interventions. These inefficiencies inherent to the system are identified through the implementation of the tracking system as described in the first element of the strategy in Section B.2.1. Below illustrated are a few examples of such interventions and positive outcomes generated through efficiency improvements in the current system.

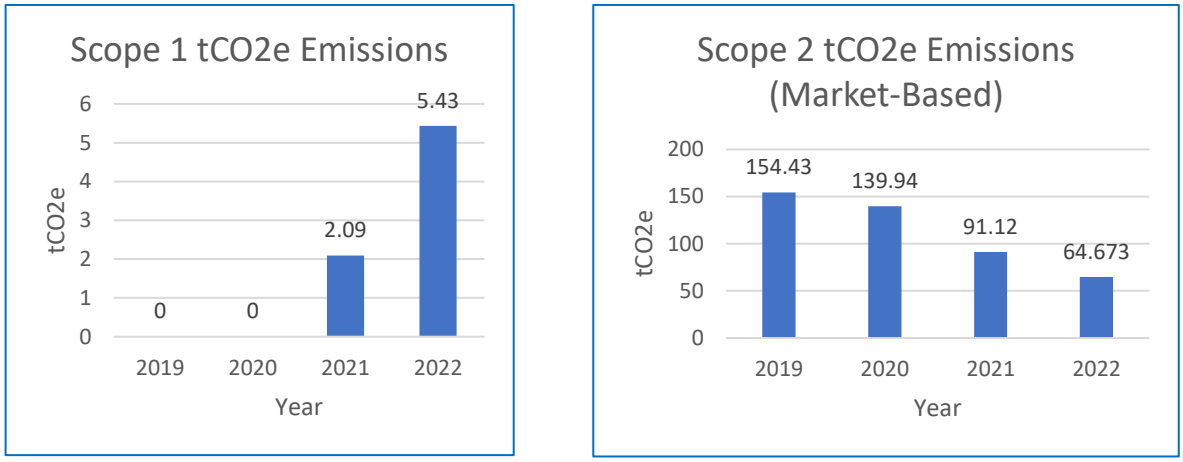


Figure 10: Scope I & II emissions evolution from 2019 (with fugitive emissions)

When the emission numbers are compared from 2019 to 2022, the Scope I emissions have fluctuated over the years. The sole contributor for scope I emission is the leakage of refrigerant from the air-conditioning units, and these fugitive emissions are tabulated from the topped-up refrigerants during maintenances.

Despite the above-mentioned scenario, scope II emissions have seen a continuous reduction from 2019 till 2022, due to positive impacts of energy saving initiatives. Detailed below are the list of initiatives implemented at TIM – Johor Bahru Factory project site.

1) Year 2020:

NOS.	INITIATIVES	DESCRIPTION
i)	Production Shift Rescheduling for Energy Reduction	➢ Initial schedule: Runs for 5 days at 8 hours. – More start up energy used. New Schedule: Runs for 4 days at 12 hours. – Lesser start up energy. ➢ Lesser start up waste from tobacco.
ii)	Aircond Usage Reduction during “maintenance day” to off / run half-day.	➢ Aircond/AHU in the production floor only used during production, and any maintenances carried out run on only half of specified AHU running hours.
iii)	Incineration of waste	➢ Zero waste to landfill by sending remaining waste for Incineration.

iv)	Awareness Campaigns	➢ Switch – Off: Awareness posters near switches to remind people to switch off plug after use of equipment. ➢ Water – Usage: Water flushing poster in toilet area to remind people to use the lesser flush for lesser water consumption.
v)	Water Reduction from Tobacco Disposal	➢ Initial Process: Watering down tobacco making it unusable before disposing to landfill. ➢ New Process: Tobacco waste is sent for incineration (without process of watering down the tobacco), and mixing the tobacco with waste palm oil fruits to make it unusable.
vi)	Pickup FG schedule revised to reduce number of trips and carbon produced.	➢ Initial Process: Weekly pick for FG goods ➢ New Process: Consolidated pickup every fortnight.
vii)	Recycle of waste	➢ Material that are paper or plastic based are sent for recycling.

2) Year 2021:

NOS.	INITIATIVES	DESCRIPTION
i)	Rainwater Harvesting System (RWHS)	➢ Installed Rainwater system (Figure 11) to reduce withdrawn water usage.
ii)	LED Lighting	➢ Replaced all our Lighting in our factory to lower watts LED-lighting.
iii)	Sensor Lights	➢ Placed sensor light in certain areas like ground floor toilet to reduce energy usage.
iv)	Solar Lights	➢ Replaced all external spotlights to Solar Lights, that has motion sensors.
v)	New categories of waste for recycling.	➢ Added new categories such as paper based, metal, and wood for recycle.

Figure 11: Rainwater Harvesting System

3) Year 2022:

NOS.	INITIATIVES	DESCRIPTION
i)	Installed solar PV panels (Figure 12) in April 2022	➢ Total solar capacity installed is 83.16 kWp, which replaces the total energy consumption by 37.9%.
ii)	Zone-Metering	➢ Replaced Identify areas with deviations from expected energy consumption, and determining action plan for the areas of concern.

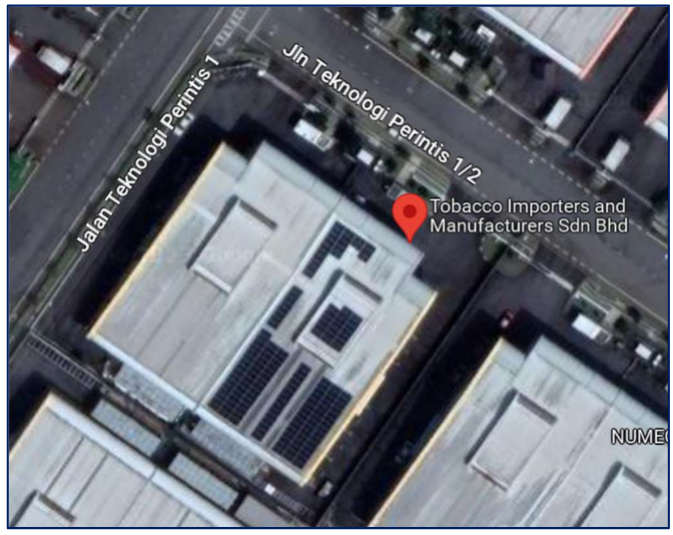


Figure 12: Installed Solar Panels at TIM – JB Factory

The overall evolution of energy use and changes in emissions are explained graphically in Section B.2.2.1.

B.2.2.1. TIM – Johor Bahru Factory : Energy and Emissions Related Information

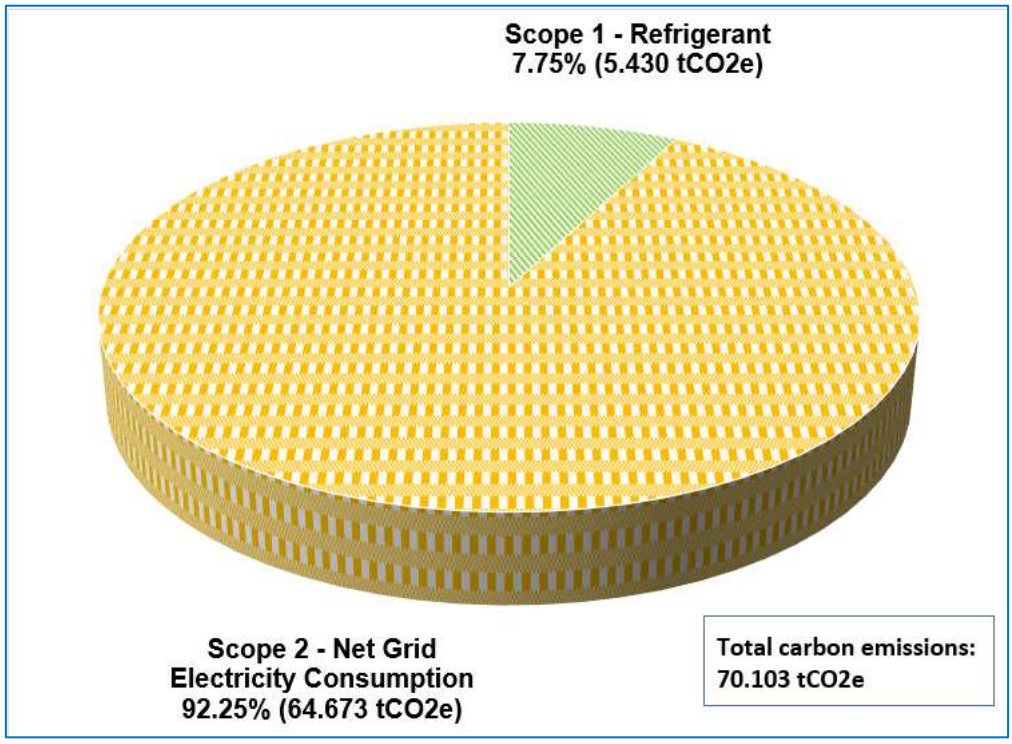


Figure 13: Scopes of Carbon Emissions

Scope I emissions account for 7.75% of emissions in the Year 2022, with a total of 5.430 tCO2e, while Scope II emissions account for 92.25% of the emissions in the Year 2022, with a total of 64.673 tCO2e. The solar energy generated on-site only takes into account 8 months of this reporting period as the solar PV panels were only installed and energized in the month of April 2022.

Hence, the **total amount of Scope I and II carbon emissions are 70.103 tCO2e**.

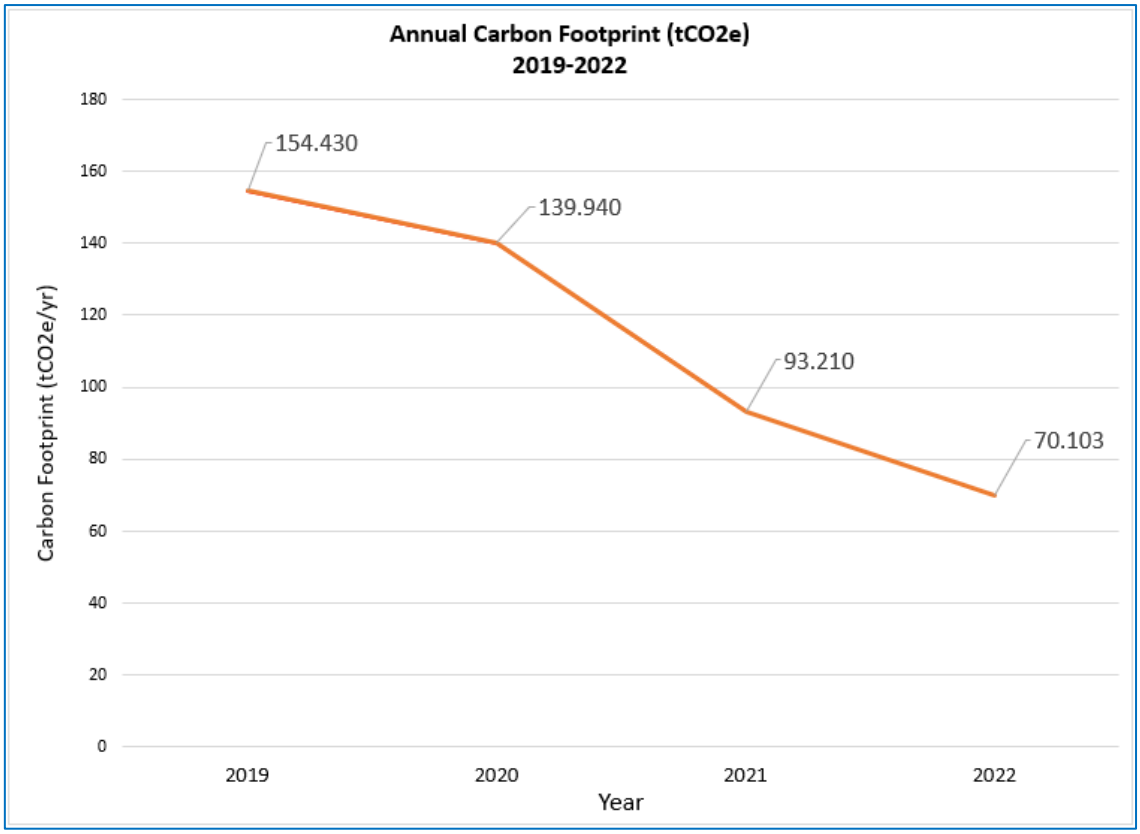


Figure 14: Annual Carbon Footprint (tCO2e)

The historical data is depicted in Figure 14. The carbon footprint of TIM Johor Bahru – Factory manufacturing plant is on a downward trend. A statistical comparison of the past 4 years' carbon footprint data revealed a significant reduction in carbon footprint from year 2019 to 2022. Throughout the years, the company's total carbon footprint marks the highest at 154.43 tCO_2e/yr in Year 2019, the first year of operation of the manufacturing plant. From year 2019 to 2020, the company further reduced the carbon footprint by 9.38% to 139.94 tCO_2e/yr through various initiatives implemented such as production shift rescheduling, aircond usage reduction, spreading sustainability awareness strategies, and reduction of electricity consumption such as Scope 1 electrification. This 139.94 tCO2e is taken as the baseline for the declaration.

In the Year of 2021, the carbon footprint reduced by 33.39% to 93.21 tCO2e/year. The carbon footprint for the **Year 2022** is at 70.103 tCO2e with a reduction of 24.79% compared to Year 2021, and a **total of 49.91% from the baseline**.

B.3. Description of Indirect Sources of Emission (Energy)

According to the emissions inventory **validated by BSD Consultancy Sdn Bhd**, the total electricity consumption and tCO2e is described in Table 12.

Table 12: Electricity consumption and tCO2e emissions

Entity	Electricity (MWh)	tCO2e (Market-based)
Tobacco Importers and Manufacturers Sdn Bhd – Johor Bahru Factory	156.582	104.111

The total Scope II tCO2e electricity consumption were net-off by first reducing the energy imported from the grid with the newly installed solar panels. The outstanding electricity were converted from kWh to tCO2e with the conversion rate of **0.6649 tCO2e/MWh (market-based)**, and offsetted with carbon credits.

In this manner, all energy consumption in the period was **initially net-off through energy generated by solar panels, then offsetted with carbon credits**, according to the **market-based methodology**.

ANNEX C - DESCRIPTION OF THE INSTRUMENTS FOR REDUCING THE CARBON FOOTPRINT AND COMPENSATING THE RESIDUAL EMISSIONS

C.1. Description of Offsetting Instruments - Carbon Credits

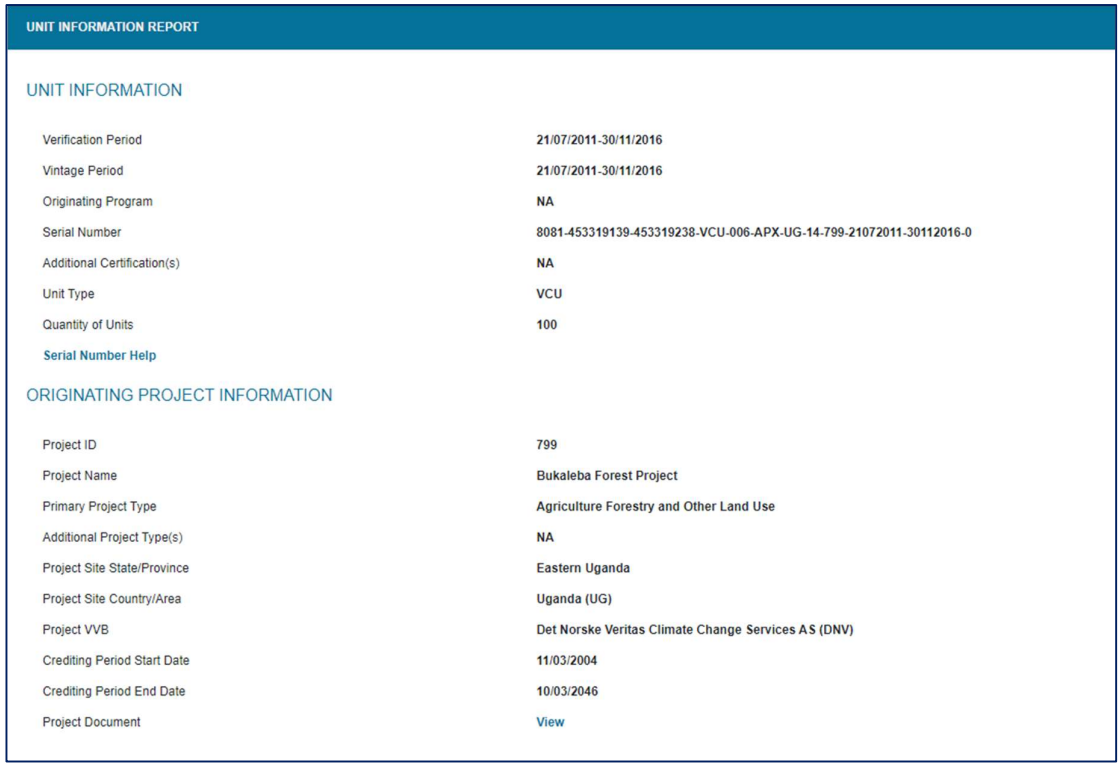
A total of 100 credits were purchased from a single project as per details mentioned in Table 13. The total **100 carbon credits** purchased were **retired to offset scope I and scope II tCO2e emissions**.

Table 13: Details of Carbon Credit Purchased

Project Name	CC Quantity	Serial Number	Retired Date (DD/MM/YYYY)
Bukaleba Forest Project	100	8081-453319139-453319238-VCU-006-APX-UG-14-799-21072011-30112016-0	10/02/2023

The reference to the retirements made for the carbon credits purchased can be validated from the details given in Figure 15 for Bukaleba Forest Project, and retirement certificate is attached in ANNEX D.

The Carbon Offsets were acquired in accordance with the results tabulated in Section A.4. Verra's Verified Carbon Standard (VCS) was used for the purpose of offsetting, and detailed project related information can be found below.



UNIT INFORMATION REPORT

UNIT INFORMATION

Verification Period	21/07/2011-30/11/2016
Vintage Period	21/07/2011-30/11/2016
Originating Program	NA
Serial Number	8081-453319139-453319238-VCU-006-APX-UG-14-799-21072011-30112016-0
Additional Certification(s)	NA
Unit Type	VCU
Quantity of Units	100
Serial Number Help	

ORIGINATING PROJECT INFORMATION

Project ID	799
Project Name	Bukaleba Forest Project
Primary Project Type	Agriculture Forestry and Other Land Use
Additional Project Type(s)	NA
Project Site State/Province	Eastern Uganda
Project Site Country/Area	Uganda (UG)
Project VVB	Det Norske Veritas Climate Change Services AS (DNV)
Crediting Period Start Date	11/03/2004
Crediting Period End Date	10/03/2046
Project Document	View

Figure 15: Bukaleba Forest Project – Project Information – 100 Carbon Credits

C.2. Use of Carbon Neutrality Instruments

Scope I and Scope II (using market-based method) residual emissions, according to the inventory validated by BSD Consultancy Sdn Bhd, add up to a total of 70.103 CO2e. Hence, as a buffer, 100 carbon credits are purchased.

The 100 carbon credits acquired are to offset the emissions of **70.103 tCO2e** related to **Scope I and II only**, thus making **TIM – Johor Bahru Factory carbon neutral**.

C.3. Quality Criteria for Clearing Instruments

The carbon credits acquired, as mentioned in Section C.2, meet all the quality criteria set out in Standard PAS 2060: 2014, namely:

- Acquired credits represent an emission reduction considered additional (VCS799 - Busoga Forestry Co. Ltd (Subsidiary Green Resources)/ Agriculture Forestry and Other Land Use).

- Projects originating from carbon credits meet the criteria of additionality, permanence and do not have double counting risks (VCS799 - Busoga Forestry Co. Ltd (Subsidiary Green Resources)/ Agriculture Forestry and Other Land Use).

- Carbon credits were verified by an independent third party and the respective details are given in Table 14.

- Carbon credits were retired within the 12-month period from the date of the declaration of neutrality on 10th February, 2023.

- The public platform Verra, which is an international standard and a platform that has Quality principles (Verra's Quality Assurance Principles including additionality, permanence, leakage and avoided double counting) contains all documentation of the Project from which the Carbon Credits were acquired, and the Project's Verra Registry.

Table 14: Carbon Credit Verifier Details

Project	Verifier	Link
ID – 799	Det Norske Veritas Climate Change Services AS (DNV)	https://registry.verra.org/app/projectDetail/VCS/799

ANNEX D - RETIREMENT STATEMENTS FOR CARBON CREDITS

Reference to Carbon Credits Purchased by TIM Johor Bahru Factory

- Bukaleba Forest Project - https://registry.verra.org/app/projectDetail/VCS/799

VERRA

Verified Carbon Standard

Certificate of Verified Carbon Unit (VCU) Retirement

Verra, in its capacity as administrator of the Verra Registry, does hereby certify that on 10 Feb 2023, 100 Verified Carbon Units (VCUs) were retired on behalf of:

Tobacco Importers & Manufacturers SDN BHD - Consumption year 2022

Project Name
Bukaleba Forest Project

VCU Serial Number
8081-453319139-453319238-VCU-006-APX-UG-14-799-21072011-30112016-0

Additional Certifications

Powered by APX

Figure 16: TIM – Johor Bahru Factory - Certificate of Retirement

Carbon offset credits from Bukaleba Forest Project, recognised by VCS, have been retired to achieve carbon neutrality for TIM – Johor Bahru Factory.

These credits meet the requirements of PAS 2060, including:

a) Offsets generated or allowance credits surrendered represent genuine, additional GHG emission reductions elsewhere.
b) Projects involved in delivering offsets meet the criteria of additionality, permanence, leakage, and double counting.
c) Carbon offsets are verified by an independent third-party verifier.
d) Credits from Carbon offset projects are only issued after the emission reduction has taken place.

The carbon credits are retired on a publicly available registry with Tobacco Importers and Manufacturers Sdn. Bhd. noted as the Beneficiary.

Carbon Credit Certification: VCS
Project: Bukaleba Forest Project
Volume retired: 100 tCO2e
Carbon offset credits retirement date: 10/02/2023

ANNEX E – VALIDATION LETTER

BSD CONSULTANCY SDN. BHD. (817998-P)
3-10, Oval Tower @ Damansara
No. 685, Jalan Damansara
TTDI, 60000 Kuala Lumpur.
Office: + 603-7732 9873
Fax: +603-7732 9875

BSD Consultancy Sdn. Bhd. (BSD) is commissioned by Tobacco Importers and Manufacturers Sdn. Bhd. (TIM) - Johor Bahru Factory at Nusajaya Tech Park, to perform Other Party Validation (OPV-01) on their carbon footprinting and carbon neutralization achievement in accordance to PAS2060:2014.

BSD was supplied with relevant data for carbon auditing and BSD has completed review, validation, and verification of the data provided.

PAS 2060 Declaration

Carbon neutrality of Tobacco Importers and Manufacturers Sdn. Bhd. (TIM) Johor Bahru Factory at Nusajaya Tech Park, Johor achieved in accordance with PAS 2060: 2014 for the period of 1st December 2021 to 30th November 2022 declared.

Signed on behalf of BSD Consultancy Sdn. Bhd.

Kelly Lee
Managing Director