 Greenhouse gas Management and Certification Unit	Carbon Footprint Organization Verification Statement		TCFO_V_10A Version 011 : 24/08/2022
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	Verification agency	Greenhouse Gas Management and Certification Unit, University of Phayao	

Carbon Footprint Organization Verification Statement

The Greenhouse Gas Management Certification Unit of the University of Phayao, led by Assistance Professor Dr. Anusorn Boonpoke and Assistant Professor Dr. Buran Phansawan, conducted a verification of the organizational carbon footprint for Vanachai Group Public Company Limited. This verification was performed in accordance with the Organizational Carbon Footprint Calculation and Reporting Requirements set by the Thailand Greenhouse Gas Management Organization (Public Organization) (6th Revision, July 2022). Mr. Suwit Nawaphanuphak was responsible for the data. The verification was conducted at a limited assurance level. The scope of work was defined using the Control Approach for greenhouse gas emission sources and the Operational Control method for assessment. The verification process took place on June 20, 2025.


1. Verification Objective

To verify the GHG report for Carbon Footprint registration with the Thailand Greenhouse Gas Management Organization (Public Organization) for Scope 1 and Scope 2.

2. Verification Scope

The verification body conducted the verification of greenhouse gas emission sources within the organizational boundary based on the Operational Control approach. The verification covered Vanachai Group Public Company Limited. The organizational boundary was assessed based on the following supporting documents: (1) the Company Affidavit of Vanachai Group Public Company Limited, Company Registration No. 0107537002621, (2) the Factory Operation License, Factory Registration No. 00200300125347 (Chonburi Plant), and (3) Permit for Land Utilization to Operate Business in Industrial Estate No. 2-22-0-109-80469-2566 (Saraburi Plant).

The verification scope covered greenhouse gas emission sources for “Scope 1,” including: (1) Stationary Combustion from Diesel, Gasoline, LPG and Biomass fuel (wood dust and bark) in machinery and factory operations (Chonburi Plant), and LPG, Gasohol 95, Diesel and Biomass (wood dust and bark) fuel consumption from machinery and factory operations (Saraburi Plant); (2) Mobile combustion from Diesel, Gasohol 91, Gasohol 95, and E20 fuel consumption for vehicles

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(Chonburi Plant), and automotive Diesel consumption (Saraburi Plant) and automotive Gasohol 95 consumption (Head office); and (3) Fugitive Emissions: in Chonburi Plant i.e. methane emissions from the septic tank system, nitrous oxide emission from fertilizer utilization (16-16-16, 15-15-15, Multitech), the use of fire extinguishing agents (HFC-236FA and CO₂) and refrigerants (R134a, R32, R410a), and in Saraburi Plant i.e. methane from the septic tank system, nitrous oxide emission from fertilizer utilization (15-15-15), the use of fire extinguishing agents (HFC-236FA and CO₂) and refrigerants (R134a, R32, R410a, R407c). “Scope 2” covered indirect emissions from purchased electricity supplied by the Provincial Electricity Authority (PEA) and Solar rooftop electricity in Chonburi and Saraburi Plants. In addition, leakage of refrigerant R22 and Biogenic CO₂ emissions from biomass combustion were separately reported under the “Separate report” section.

The verification was conducted based on the organization’s Greenhouse Gas Emission and Removal Report in Word file format and the greenhouse gas inventory spreadsheets in Excel format submitted by the company. The reporting period covered 1 January 2024 to 31 December 2024 (1 year). The verification of Vanachai Group Public Company Limited was performed at a Limited Level of Assurance with a materiality threshold of ±5%.


3. Verification Methods

The verification process was conducted in three steps, as follows:

1) Verification of the accuracy and completeness of the organization’s Greenhouse Gas Emission and Removal Report in Word format and the greenhouse gas inventory spreadsheets in Excel format submitted by the company.

2) Verification of the data quality management system and data accuracy through interviews with data managers/responsible personnel, data collectors, management representatives, and internal data reviewers in accordance with the organization’s data quality management framework.

3) Verification of data accuracy by reviewing the correctness and consistency of the Organization Carbon Footprint (CFO) calculation, including examining the resource consumption data used for the calculations from the monthly accounting records.

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4. Verification Result

The verification results indicate that, based on the verification method described in step 3, there is no evidence indicating any material misstatements in the organization's Greenhouse Gas Emission and Removal Report. Additionally, no inappropriate representations of the quantities of carbon footprint of organization were found.

Carbon footprint for organization of Vanachai Group Public Company Limited is reported as follows.

GHG Emissions and Removals	Historical Data
Scope 1	8,028 Ton CO ₂ equivalent
Scope 2	61,506 Ton CO ₂ equivalent
Scope 3	- Ton CO ₂ equivalent
Separate report	136,275 Ton CO ₂ equivalent
Storage (if applicable)	- Ton CO ₂ equivalent

The total carbon footprint for Scope 1 and 2 presented for reporting with Thailand Greenhouse Gas Management Organization is **69,534** Ton CO₂ equivalent, as indicated by the carbon footprint label.

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5. Limitations and Significant Exceptions of the Verification (if applicable)

None

Verified by

Signature of authorized person



.....

(Associate Professor Dr. Torpong Kreetachat)

Signature of the lead verifier



.....

(Assistant Professor Dr. Anusorn Boonpoke)


Dean, School of Energy and Environment
Acting on behalf of the Head of the Greenhouse
Gas Management Certification Unit, University of
Phayao

Lead verifier

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Greenhouse Gas Management Certification Unit,
University of Phayao
19 Moo 2, Mae Ka Subdistrict, Mueang Phayao
District, Phayao 56000, Thailand

Statement date: 20 July 2025

 SEEN Greenhouse gas Management and Certification Unit	Carbon Footprint Organization Verification Statement		TCFO_V_10A Version 011 : 24/08/2022
	Organization	Vanachai Panel Industries Company Limited	Page 1
	Verification agency	Greenhouse Gas Management and Certification Unit, University of Phayao	

Carbon Footprint Organization Verification Statement

The Greenhouse Gas Management Certification Unit of the University of Phayao, led by Assistance Professor Dr. Anusorn Boonpoke and Assistant Professor Dr. Buran Phansawan, conducted a verification of the organizational carbon footprint for Vanachai Panel Industries Company Limited. This verification was performed in accordance with the Organizational Carbon Footprint Calculation and Reporting Requirements set by the Thailand Greenhouse Gas Management Organization (Public Organization) (6th Revision, July 2022). Mr. Jaran Jaranong was responsible for the data. The verification was conducted at a limited assurance level. The scope of work was defined using the Control Approach for greenhouse gas emission sources and the Operational Control method for assessment. The verification process took place on June 17, 2025.


1. Verification Objective

To verify the GHG report for Carbon Footprint registration with the Thailand Greenhouse Gas Management Organization (Public Organization) for Scope 1 and Scope 2.

2. Verification Scope

The verification body conducted the verification of greenhouse gas emission sources within the organizational boundary based on the Operational Control approach. The verification covered Vanachai Panel Industries Company Limited. The organizational boundary was assessed based on the following supporting documents: (1) the Company Affidavit of Vanachai Panel Industries Company Limited, Company Registration No. 0105538073822, (2) the Factory Operation License, Factory Registration No. 1 0 8 4 0 0 0 1 3 2 5 6 0 1 (OSB Plant), (3) the Factory Operation License, Factory Registration No. 10840500125403 (PB, MDF 1, MDF 2, MDF 3, and MDF 5 Plants), and (4) the Factory Operation License, Factory Registration No. 10840205825653 (PYLWOOD Plant).

The verification scope covered greenhouse gas emission sources for “Scope 1,” including: (1) Mobile Combustion from Diesel and Gasoline fuel consumption for vehicles (On road and Off road); (2) Stationary Combustion from Diesel, Gasoline, Fuel oil, LPG, CO₂ and Fuel wood in the

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machinery and factory operation; and (3) Fugitive Emissions from the use of refrigerants (R32, R134a, and R410a), fire extinguishing agents (HFC, CO₂, and Halon 1211), methane emissions from the septic tank and wastewater treatment systems, and greenhouse gas from solid waste management in the company. “Scope 2” covered indirect emissions from purchased electricity supplied by the Provincial Electricity Authority (PEA) and Vanachai Energy Co., Ltd., and Solar rooftop electricity from the MDF 3 Plant. In addition, leakage of refrigerant R22 and Biogenic CO₂ emissions from biomass combustion were separately reported under the “Separate report” section.

The verification was conducted based on the organization’s Greenhouse Gas Emission and Removal Report in Word file format and the greenhouse gas inventory spreadsheets in Excel format submitted by the company. The reporting period covered 1 January 2024 to 31 December 2024 (1 year). The verification of Vanachai Panel Industries Company Limited was performed at a Limited Level of Assurance with a materiality threshold of $\pm 5\%$.


3. Verification Methods

The verification process was conducted in three steps, as follows:

1) Verification of the accuracy and completeness of the organization’s Greenhouse Gas Emission and Removal Report in Word format and the greenhouse gas inventory spreadsheets in Excel format submitted by the company.

2) Verification of the data quality management system and data accuracy through interviews with data managers/responsible personnel, data collectors, management representatives, and internal data reviewers in accordance with the organization’s data quality management framework.

3) Verification of data accuracy by reviewing the correctness and consistency of the Organization Carbon Footprint (CFO) calculation, including examining the resource consumption data used for the calculations from the monthly accounting records.

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4. Verification Result

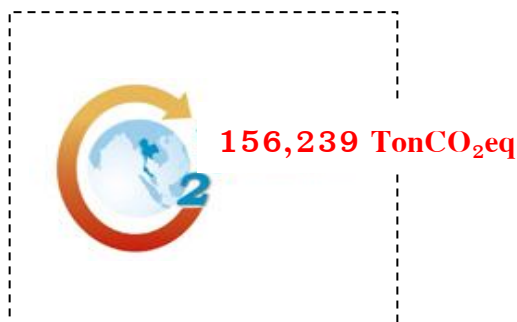
The verification results indicate that, based on the verification method described in step 3, there is no evidence indicating any material misstatements in the organization's Greenhouse Gas Emission and Removal Report. Additionally, no inappropriate representations of the quantities of carbon footprint of organization were found.

Carbon footprint for organization of Vanachai Panel Industries Company Limited is reported as follows.

GHG Emissions and Removals	Historical Data	
Scope 1	14,495	Ton CO ₂ equivalent
Scope 2	141,744	Ton CO ₂ equivalent
Scope 3	-	Ton CO ₂ equivalent
Separate report	259,722	Ton CO ₂ equivalent
Storage (if applicable)	-	Ton CO ₂ equivalent

The total carbon footprint for Scope 1 and 2 presented for reporting with Thailand Greenhouse Gas Management Organization is **156,239** Ton CO₂ equivalent, as indicated by the carbon footprint label.

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5. Limitations and Significant Exceptions of the Verification (if applicable)

None

Verified by

Signature of authorized person



.....
(Associate Professor Dr. Torpong Kreetachat)

Dean, School of Energy and Environment

Acting on behalf of the Head of the Greenhouse
Gas Management Certification Unit, University of
Phayao

Greenhouse Gas Management Certification Unit,
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Signature of the lead verifier



.....
(Assistant Professor Dr. Anusorn Boonpoke)

Lead verifier

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Statement date: 13 July 2025