

Product Carbon Footprint (CFP) Verification Statement

The assessment of TYPE II ENVIRONMENTAL CLAIMS – Carbon Free and ECO Origin Products for Gaseous Nitrogen (GAN), ,

Liquefied Nitrogen (LIN), Liquefied Oxygen (LOX) and Liquefied Argon (LAR)

Manufactured / provided by:

Air Liquide Vietnam, Co., Ltd.

Que Vo Industrial Park, Van Duong, Bac Ninh City, Bac Ninh Province, Vietnam

Bureau Veritas verified the quantity of the product carbon footprint of the above organization's product(s) and found to be in accordance with the requirements of the Standard below with reasonable level of assurance. Bureau Veritas issues this Statement to the above organization as shown below only in respect of the verified products described and detailed in the Schedule to this Statement.

STANDARDS

ISO 14067:2018

Greenhouse gases – Carbon footprint of products – Requirements and guidelines for quantification

ISO 14021:2021

Environmental labels and declarations – Self-declared environmental claims (Type II environmental labelling)

Verification Number:

VN.20953564

System boundary:

Cradle-to-Gate

Functional unit:

Air Gases produced volume (Nm³)

Functional unit emissions:

0 kg CO2e/Nm3 for Carbon Free products

9.72 kg CO2e/ton for Eco Origin products

Assessment period:

1 January 2023 - 31 December 2023

Signed on behalf of Bureau Veritas Vietnam

08th November 2024

Sheng Wa NG

Certification Manager

To check the validity of this statement please contact: Bureau Veritas Vietnam



Verified Products:

Table 1. CFP and Quantity of Carbon Free and Eco Origin Products Produced and Sold during 1st January 2023 – 31st December 2023

daring 1 January 2023 ST December 2023						
	Product	Quantity (Nm³)			CFP	
		1 January – 31 December 2023				
		Produced	To be claimed as Carbon Free / Eco Origin product	Sold as Carbon Free / Eco Origin product	Regular product (kgCO2e/Nm³)	Carbon Free / Eco Origin product
Gas Products distributed via pipeline	GAN	107,913,554		0	0.15	0 kgCO2e/Nm³
Liquefied Gas	LOX	26,464,901	30,160,860	0	1.09*	9.72
Products	LIN	84,992,313		0	0.70*	kgCO2e/ton
transported in bulk by trucks	LAR	1,391,363		0	1.99*	(resulted from transportation)
Total		220,762,131	30,160,860	0		

^{*}CFP from production only

Air Liquide Vietnam, Co., Ltd. (ALV) purchased RECs up to 30 GWh (1 January - 31 December 2023), thus the quantity of Carbon Free and Eco Origin Products produced with renewable energy was 30,160,860 Nm³ (1 January - 31 December 2023) within the defined perimeter from production to transportation of the gases. However, within the period of the claim, ALV has not yet sold any Carbon Free nor Eco Origin Products.

Verified organization detail:

Company name:

Air Liquide Vietnam, Co., Ltd.

Company address:

Que Vo Industrial Park, Van Duong, Bac Ninh City, Bac Ninh Province, Vietnam

Contact:

Huy Nguyen - LI/ET Business Developer (huy.nguyen1@airliquide.com)

Verification date:

o 28th May 2024 to Head Office – Bac Ninh Plant

(Que Vo Industrial Park, Van Duong, Bac Ninh City, Bac Ninh Province, Vietnam Zip code: 790000)

o 29th May 2024 to Yen Phonh Plant

(Yen Phong Industrial Park, Yen Phong, Bac Ninh City, Bac Ninh Province, Vietnam Zip code: 790000)

o 30th May 2024 to SHTP Plant

(Lot I - 2A, Road No.2, Saigon High Tech Park, Thu Duc City, HCMC, Zip code: 700000)



Verification scope:

The verification scope was limited to assurance over the information included within ALV Methodology Calculation Report for Third Party Verification ('the Report') during the verification period of 1st January – 31st December 2023 on 3 (three) ALV operating facilities.

System boundary:

Cradle-to-Gate, with two types of supply methods (i.e. Pipeline supply for GAN product and Bulk supply by trucks for LOX, LIN, LAR products)

Level of assurance:

Limited assurance

Techniques and processes used:

The techniques verification team performed to test were based on interview with ALV relevant personnel, documents review, CFP calculation and related evidence review.

Limitations:

The verification was limited to ALV products under the scope and boundary as defined in the Report. The verification was subject to the following exclusions :

- Capex emissions related to renewable power plants;
- Capex emissions related to ALV production plants;
- Electricity grid losses between the renewable power plant and ALV's plants;
- The packaging materials for the gases, if any; and
- No end-of-life or waste for the gases supplied;

Additional information: N/A