

PRODUCT CARBON FOOTPRINT VERIFICATION STATEMENT

Product Carbon Footprint of CELESTIAL ALUMINIUM, calculated by EMIRATES GLOBAL ALUMINIUM

DNV AS – Abu Dhabi Branch ('DNV') has been commissioned by Emirates Global Aluminium (hereafter referred to as 'EGA' or 'the Company') to undertake an independent assurance in line with the ISO 14067 standard "Greenhouse gases – Carbon footprint of products – Requirements and guidelines for quantification" covering the life cycle GHG emissions of the branded product "CelestiAL Aluminium" listed in this statement and produced by EGA over the period 1.1.2023 to 31.12.2023.



Our Conclusion: In DNV's opinion, based on our verification procedures and agreed-upon scope of work, nothing has come to our attention to suggest that the presented GHG assertions:

- Is not materially correct nor is a fair representation of the GHG data and information, and
- Is not prepared in accordance with ISO 14067:2018 in relation to GHG quantification, monitoring and reporting.

Objectives

The purpose of this verification exercise is an independent review of

- The life cycle GHG emissions of the product(s) are as declared by the organisation's GHG assertion, and
- The data reported is accurate, complete, consistent, transparent and free of material error or omission.

Scope

As per the agreed scope of work, DNV has conducted an independent limited verification of the cradle-to-gate life cycle GHG emissions associated with the sourcing, transportation of raw materials, and manufacturing processes of the selected product of CelestiAL Aluminium. This verification has been performed in line with ISO 14067:2018 ("Greenhouse gases – Carbon footprint of products – Requirements and guidelines for quantification") for the product(s) manufactured by EGA during the period 1.1.2023 to 31.12.2023. The principles within the scope of our engagement includes the following disclosures ('Selected information'):

Title of description of activities:	Manufacturing of basic aluminium products
Product Category Rule:	LCA study has been prepared in accordance with ISO 14040/44 Additionally, Product Category Rule (PCR) for Basic Aluminium products and special alloys; 2022:08, version 1.0 has been adopted
Declared unit:	1,000 kg of aluminium ingot
System boundary:	Cradle to Gate (Mining to Casting)
Date resources:	<ul style="list-style-type: none"> ✓ Primary Data for LCA study: Collected for the year 2023. ✓ Secondary Data Sources: <ul style="list-style-type: none"> • IAI Data: Reference years 2019 and 2015. • GaBi Database: Version 2023.2. • Ecoinvent Database: Version 3.8.
Geographical boundaries	Two production sites located in UAE (EGA Jebel Ali smelter and EGA Al Taweelah smelter)
Life cycle assessment tool and index:	Sphera's LCA for Experts 10.8.0.14 software system (Sphera, 2024)
GHG information for the production period:	January 1, 2023 to December 31, 2023 (for primary data)
Intended use of the verification statement:	To communicate the GHG performance of EGA aluminium product to EGA customers and other stakeholders (As per LCA report)

Materiality

DNV applied a ±5% materiality threshold for assessing errors and omissions.

Basis of our conclusion

EGA provided the GHG assertion based on the requirements of ISO 14067:2018. The data has been verified by DNV to a limited level of assurance, consistent with the agreed verification, scope, objectives and criteria.

The GHG emission of each product is as described in Annex A.

As part of the assurance process, a multi-disciplinary team of assurance specialists performed assurance work for selected site(s) of EGA. A risk-based approach was adopted with the assurance efforts focused on the issues of high material relevance to the company's business and its key stakeholders. Our assurance procedures included, but were not limited to, the following activities:

- Review of the disclosures according to reporting requirements. Our focus included Product Carbon Footprint disclosures and the management processes;
- Peer and media review to identify relevant Product Carbon Footprint issues for EGA in the reporting period;
- Walk-through of key data sets. Understanding and testing, on a sample basis, of the processes used to evaluate the reporting requirements;
- Collect and evaluate documentary evidence and management representations supporting adherence to the reporting principles and requirements;
- Interviews with the senior managers responsible for management of disclosures. DNV was free to choose interviewees and interviewed those with overall responsibility of monitoring, data consolidation and reporting of the selected information;
- On-site audits at EGA's operational sites in Al Taweelah and Jebel Ali sites. Sample based assessment of site-specific data disclosures was carried out. DNV based the sites on their 2023 production levels of the products defined within the scope of this assessment, number of employees, location, total production and previous site-visits performed.

This verification engagement is based on the assumption that the data and information provided to us is complete, sufficient and true. We planned and performed our PCF verification work to obtain the evidence we considered necessary to provide a limited level of verification, while adopting a risk-based approach towards selection of samples for assessing the robustness of the underlying data management system, information flow and controls.

Our competence, independence and quality control

DNV's established policies and procedures are designed to ensure that DNV, its personnel and, where applicable, others are subject to independence requirements (including personnel of other entities of DNV) and maintain independence where required by relevant ethical requirements. This engagement work was carried out by an independent team of carbon footprint professionals. We have no other contract with EGA that could compromise the independence or impartiality of our work.

Responsibilities of the Management of EGA and DNV

The Management of EGA has sole responsibility for:

- Preparing and presenting the selected information;
- Designing, implementing and maintaining effective internal controls over the information and data, resulting in the preparation of the selected information that is free from material misstatements;
- Measuring and reporting the selected information.

DNV's responsibility is to plan and perform the work to obtain assurance about whether the selected information has been prepared in accordance with the reporting requirements and to report to EGA in the form of an independent assurance conclusion, based on the work performed and the evidence obtained.

DNV AS - Abu Dhabi Branch		
Vikas Bankar Lead Verifier	Kakaraparthi Venkata Raman Technical Reviewer	Sandeep Lele Approver

Annex A: Products included within the scope of this statement.

CelestiAL Aluminium Ingot: Low-carbon product produced using the most efficient production lines and solar energy

Product Name		Total CelestiAL Aluminium						
Declared Unit		1,000 kg of aluminium ingot (at factory gate)						
Product Carbon Footprint (GWP Impact Category) - Life Cycle GHG Emissions of Declared Unit (Unit: kilogrammes of CO ₂ e)								
Upstream				Midstream				Total
Bauxite Mining	Bauxite transport	Alumina Production	Alumina transport	Anode Production	Electricity Consumption	Electrolysis	Casting	
59	128	1,542	40	696	290	1,531	485	4,771

Product Name		Al Taweelah CelestiAL Aluminium						
Declared Unit		1,000 kg of aluminium ingot (at factory gate)						
Product Carbon Footprint (GWP Impact Category) - Life Cycle GHG Emissions of Declared Unit (Unit: kilogrammes of CO ₂ e)								
Upstream				Midstream				Total
Bauxite Mining	Bauxite transport	Alumina Production	Alumina transport	Anode Production	Electricity Consumption	Electrolysis	Casting	
41	199	1,321	14	640	290	1,508	439	4,452

Product Name		Jebel Ali CelestiAL Aluminium						
Declared Unit		1,000 kg of aluminium ingot (at factory gate)						
Product Carbon Footprint (GWP Impact Category) - Life Cycle GHG Emissions of Declared Unit (Unit: kilogrammes of CO ₂ e)								
Upstream				Midstream				Total
Bauxite Mining	Bauxite transport	Alumina Production	Alumina transport	Anode Production	Electricity Consumption	Electrolysis	Casting	
83	34	1,838	75	772	289	1,563	547	5,201