PRODUCT CARBON FOOTPRINT VERIFICATION / VALIDATION STATEMENT

Product Carbon Footprint of CELESTIAL-R 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 (verification) in line with the ISO 14067:2018 ("*Greenhouse gases – Carbon footprint of products – Requirements and guidelines for quantification*") covering the life cycle GHG emissions of the branded product (CELESTIAL-R) produced at its Jebel Ali facility over the period 1.1.2023 to 31.12.2023 and a validation of the life cycle GHG emissions for the same product should it be manufactured at EGA's Al Taweelah facility in the future.

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(s). This verification has been performed in line with ISO 14067:2018 ("Greenhouse gases – Carbon footprint of products – Requirements and guidelines for quantification") for the CelestiAL-R branded product manufactured by EGA during the period 1.1.2023 to 31.12.2023 and a validation of the Carbon Footprint GHG accounting for the same product if and when manufactured at its Al Taweelah facility. The principles within the scope of our engagement includes the following disclosures ('Selected information'):

This assurance was based on a Mix Assessment relying on data which is hypothetical, projected for the Al Taweelah facility and based on verified historic data for the Jebel Ali facility.	
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:	Primary Data for LCA study: Collected for the year 2023. Secondary Data Sources: 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		
Bankar, Vikas Digitally signed by Bankar, Vikas Date: 2025.04.10 12:21:11 +04'00'	Kakaraparthi Venkata Raman Digitally signed by Kakaraparthi Venkata Raman Date: 2025.04.10 14:49:12 +05'30'	Lele, Sandeep Digitally signed by Lele, Sandeep Date: 2025.04.10 13:46:30 +04'00'
Vikas Bankar Lead Verifier	Kakaraparthi Venkata Raman Technical Reviewer	Sandeep Lele Approver

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

CelestiAL-R Aluminium Ingot: This variant of CelestiAL features a distinct metal composition with higher recycled content and alloy additives, comprising 11% post-consumer scrap, 9% pre-consumer scrap, and 9% alloys.

Product Name	**Total CelestiAL-R 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_2e)								
Upstream				Midstream				Total
Bauxite Mining	Bauxite transport	Alumina Production	Alumina transport	Anode Production	Electricity Consumption	Electrolysis	Casting	
43	94	1,129	29	510	212	1,121	1,253	4,391

The product carbon footprint presented below for the AL TAWEELAH site is based on the assumption of 11% post-consumer scrap, 9% pre-consumer scrap, and 9% alloys (the composition being followed at the Jebel Ali facility).

Product Name	**Al Taweelah CelestiAL-R 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_2e)								
Upstream				Midstream				Total
Bauxite Mining	Bauxite transport	Alumina Production	Alumina transport	Anode Production	Electricity Consumption	Electrolysis	Casting	
30	144	961	10	465	211	1,097	1,257	4,175

Product Name	**Jebel Ali CelestiAL-R 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_2e)								
Upstream				Midstream				Total
Bauxite Mining	Bauxite transport	Alumina Production	Alumina transport	Anode Production	Electricity Consumption	Electrolysis	Casting	
62	25	1,356	55	570	213	1,153	1,248	4,682