

Critical Review Statement

“Life Cycle Assessment of EGA’s Primary Aluminium Ingot Production”, commissioned by
Emirates Global Aluminium PJSC

DNV AS – Abu Dhabi Branch (“DNV”, “us” or “we”) were engaged by Emirates Global Aluminium (“EGA”) to perform an independent critical review of the Life Cycle Assessment (LCA) study conducted for the Al Taweelah (AT) and Jebel Ali (JA) aluminium plants, to assess its adherence to the International Life Cycle Assessment Standards ISO 14040:2006 and ISO 14044:2006. The critical review was conducted in accordance with ISO 14071:2024 (Critical review processes and reviewer competencies), which provides additional requirements and guidance to ISO 14040 and ISO 14044.



Our Conclusion: Based on the critical review performed and the evidence obtained, it is our conclusion that the LCA study, for the Selected Information within EGA’s LCA study, has been carried out in conformity with the requirements of ISO 14040:2006 and ISO 14044:2006. In particular, the methods used are consistent with ISO 14040 and ISO 14044 and are scientifically and technically valid; the data used are appropriate and reasonable in relation to the goal and scope of the study; the interpretations reflect the limitations identified and the goal of the study; and the study report is transparent and consistent.

This conclusion relates only to the reviewed version of the LCA study and to the criteria within the scope defined below. It does not extend to the Environmental Product Declaration (EPD) results, to Product Category Rules (PCR) or ISO 14025 conformity, nor to any comparative assertion intended to be disclosed to the public – all of which are outside the scope of this review.

Key observations are provided below. These observations do not affect our conclusion set out above.

- We recommend that EGA maintain their strong supplier engagement to secure primary data for unit processes in future environmental assessment projects. Implementing a centralized data input platform for suppliers would allow EGA to efficiently compile, track, and oversee inventory analysis for LCA model inputs, ultimately improving data quality and enhancing the reliability of assessments.
- While multiple scenarios have been considered for both sites, it is important to further improve data traceability within the assurance process. To facilitate this, we recommend constructing an additional table–complementing Table 3 of the report–that explicitly outlines the data used for each stage of the LCA and identify gaps (i.e., those compensated by IAI 2019).

Scope of Work:

The scope of this critical review is to assess the methodological consistency, transparency, completeness, and conformity of the Life Cycle Assessment (LCA) study prepared for Emirates Global Aluminium (EGA)’s aluminium ingot products in accordance with the applicable requirements of ISO 14040 and ISO 14044.

The critical review covers the following aluminium products manufactured by EGA:

- Standard Aluminium Ingot

Our competence, independence and quality control

DNV applies its own management standards and compliance policies for quality control, based on the principles enclosed within ISO/IEC 17029:2019 - Conformity Assessment - General principles and requirements for validation and verification bodies and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards, and applicable legal and regulatory requirements. DNV has complied with the Code of Conduct during the review engagement and maintains independence where required by relevant ethical requirements. This critical review was carried out by an independent team of environmental, LCA and sustainability professionals holding the competencies required by ISO 14071:2024. DNV has not undertaken any activities that could create a conflict of interest with the scope of work covered by this critical review. DNV did not provide any services to the company or its subsidiaries within the scope of this review for the year 2025 that could compromise the independence or impartiality of our work.

- CelestiAL Aluminium Ingot
- CelestiAL-R Aluminium Ingot
- MinimAL Aluminium Ingot
- MinimAL-R Aluminium Ingot

The assessment includes EGA's two production facilities in the United Arab Emirates: Al Taweelah Smelter (Abu Dhabi) and Jebel Ali Smelter (Dubai).

System boundaries: The LCA adopts a cradle-to-gate system boundary, covering the entire value chain from raw material extraction to the production of cast aluminium ingots (including alloys and scraps addition in casting process) at the smelter gate.

Declared Unit: 1000 kg/1 t of Aluminium at EGA factory gate

Impact Indicators: The scope and boundary of our work is restricted to a review of the methodology within EGA's LCA system and LCA report (containing primary data for the calendar year 2025) for the Key Performance Indicators (the "Selected Information"), listed below:

- | | |
|---|---|
| • ADP (Abiotic Depletion Potential - fossil) | • ODP (Ozone layer depletion potential) |
| • EP (Eutrophication potential) | • AP (Acidification potential) |
| • POCP (Photochemical ozone creation potential) | • GWP100 (Global warming potential) |

The methodology has been based on the LCA software GaBi (databases Sphera 2026, MLC 2025) with reference to ISO14044 principles, Aluminum sector GHG protocol and the IAI carbon footprint guidance 2019. This includes primary data from EGA sites and secondary data from upstream suppliers (with some limitations). To assess the robustness of the methodology within LCA report for the Selected Information, we reviewed EGA's LCA report system against the requirements of ISO 14040:2006 and ISO 14044:2006. We have not performed any work, and do not express any conclusion, on any other information that may be published or available on EGA's website.

Limitations and Exclusions: The system boundary ends after ingot casting unit process delivering primary aluminium ingot. Further shaping, dimensioning activities are out of scope of this project. This review does not cover the Environmental Product Declaration (EPD) results presented in Annex 7.2 of the LCA report, ISO 14025 or Product Category Rules (PCR) conformity, or any comparative assertion intended to be disclosed to the public. In accordance with ISO 14044:2006, 6.3, such applications would require a review by an interested-party panel, which has not been performed under this engagement.

Applicable Standards:

We performed an independent critical review in accordance with the requirements of the International Life Cycle Assessment Standards ISO 14040:2006 and ISO 14044:2006, applying the process and reviewer-competency requirements of ISO 14071:2024. These standards require that we comply with ethical requirements and plan and perform the review to obtain the evidence necessary to support our conclusion.

DNV applies its own management standards and compliance policies for quality control, based on the principles of ISO/IEC 17029:2019 - Conformity assessment - General principles and requirements for validation and verification bodies, and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

A critical review provides a level of confidence in the conformity of the LCA study with ISO 14040 and ISO 14044, based on the evidence obtained through the procedures performed. We planned and performed our work to obtain the evidence we considered sufficient to provide a reasonable basis for our conclusion.

Basis of our conclusion:

We are required to plan and perform our work in order to consider the risk of material misstatement of the Selected Information; our work included, but was not restricted to:

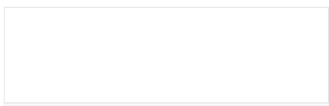
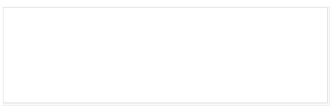
- Reviewing that the methods used to carry out the LCA studies were consistent with ISO 14044 and ISO 14040 requirements.
- Reviewing that the methods used to carry out the LCA studies were scientifically and technically valid.
- Ascertaining that the database(s) used were appropriate and reasonable in relation to the overall goal of the studies.
- Confirming that the limitations of the model and the methodology were identified and assessed.
- Assessing that the LCA methodology documentation was transparent and consistent.
- Reviewing the goal-and-scope definition, declared unit, system boundary, allocation procedures and cut-off criteria against ISO 14044.
- Reviewing the Life Cycle Inventory and Life Cycle Impact Assessment for the modelled unit processes at both sites, including the selected impact categories and their consistency with the inventory.
- Reviewing the data management processes.
- Reviewing a fully implemented client project, from background processes for data gathering and modelling to final outcomes.
- Performing limited substantive testing on a selective basis of the Selected Information to check that methodology was appropriately robust.

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