

# Independent Limited Assurance Statement to Alcoa Corporation

ERM Certification & Verification Services Incorporated (“ERM CVS”) was engaged by Alcoa Corporation (“Alcoa”) to provide limited assurance in relation to the selected information set out below and presented in the Alcoa 2022 Sustainability Report for year ending 31 December 2022 (the “Report”).

Engagement summary	
Scope of our assurance engagement	<p>Whether Alcoa’s assertions relating to the following ICMM Subject Matters (SM) are fairly presented in the Report, in all material respects, in accordance with the reporting criteria:</p> <ul style="list-style-type: none"> <li>▪ <b>SM1:</b> The alignment of Alcoa’s sustainability policies, management standards and procedures to the ICMM Principles, any mandatory requirements set out in ICMM Position Statements, the corporate-level ICMM Performance Expectations (PEs) and corporate-level aspects of the combined PEs.</li> <li>▪ <b>SM2:</b> Alcoa’s material sustainability risks and opportunities based on its own review of the business and the views and expectations of its stakeholders.</li> <li>▪ <b>SM3:</b> The existence of systems and approaches that Alcoa is using to manage selected material sustainability risks and opportunities.</li> <li>▪ <b>SM4:</b> Alcoa’s reported performance during the given reporting period for selected material sustainability risks and opportunities, as listed in Table 1 below.</li> <li>▪ <b>SM5:</b> Disclosures regarding Alcoa’s prioritisation process for selecting assets for third-party PE Validation.</li> </ul> <p>Our assurance engagement does not extend to information in respect of earlier periods or to any other information included in the Report.</p>
Reporting period	2022 (1 January 2022 – 31 December 2022)
Reporting criteria	<ul style="list-style-type: none"> <li>▪ ICMM Assurance and Validation Procedure (March 2023), including the ICMM Principles, ICMM Position Statements and ICMM Performance Expectations</li> <li>▪ Alcoa Basis of reporting the selected environmental, social, health, safety indicators as disclosed within the Report</li> </ul>
Assurance standard and level of assurance	<p>We performed a limited assurance engagement, in accordance with the International Standard on Assurance Engagements ISAE 3000 (Revised) ‘Assurance Engagements other than Audits or Reviews of Historical Financial Information’ issued by the International Auditing and Standards Board and ISO 14064:3 for Greenhouse Gas data.</p> <p>The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for a reasonable assurance engagement and consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.</p>
Respective responsibilities	<p>Alcoa is responsible for preparing the Report and for the collection and presentation of the information within it, and for the designing, implementing and maintaining of internal controls relevant to the preparation and presentation of the Selected Information.</p> <p>ERM CVS’ responsibility is to provide conclusions to Alcoa on the agreed scope based on our engagement terms with Alcoa, the assurance activities performed and exercising our professional judgement. We accept no responsibility, and deny any liability, to any party other than Alcoa for the conclusions we have reached.</p>

## Our conclusion

Based on our activities, as described below, nothing has come to our attention to indicate that the 2022 data and information for the disclosures listed under ‘Scope’ above are not fairly presented in the Report, in all material respects, in accordance with the reporting criteria.

## Our assurance activities

Considering the level of assurance and our assessment of the risk of material misstatement of the selected information a multi-disciplinary team of sustainability and assurance specialists performed a range of procedures that included, but was not restricted to, the following:

- Assessing the appropriateness of the reporting criteria for the selected information presented in the Report.
- A review of external media reporting relating to Alcoa to identify sustainability issues in the reporting period that may be relevant to the assurance scope.
- Interviews with a selection of staff and management to gain an understanding of:
  - Alcoa sustainability strategy, policies and management systems, including stakeholder engagement and materiality assessment;
  - The status of implementation of the ICMM Mining Principles (including the corporate-level PEs and corporate-level aspects of the combined PEs) and ICMM Position Statements in Alcoa's strategy and policies;
  - Alcoa's identification and management of sustainable development risks and opportunities as determined through its review of the business and the views and expectations of stakeholders; and
  - The relevant management systems and processes (including internal review and control processes) used for collecting and reporting the selected disclosures.
- Confirming that Alcoa's policies and procedures in effect remain aligned with the ICMM Mining Principles and other mandatory requirements set out in the ICMM Position Statements in effect as of 31 December 2022.
- Testing the processes and systems, including internal controls, used to generate, consolidate and report the selected information.
- Interviews with management representatives responsible for managing the selected issues.
- A review at corporate level of a sample of qualitative and quantitative evidence supporting the reported information.
- An analytical review of the year-end data submitted by all locations included in the consolidated 2022 group data for the selected disclosures which included testing the completeness and mathematical accuracy of conversions and calculations, and consolidation in line with the stated reporting boundary.
- In-person visits to the following sites to review source data and local reporting systems and controls:
  - Poços de Caldas, Brazil;
  - Deschambault, Canada;
  - Warrick, United States of America.
- Confirming conversion and emission factors and assumptions used.
- Reviewing the presentation of information relevant to the scope of our work in the Report to ensure consistency with our findings.

## The limitations of our engagement

The reliability of the assured information is subject to inherent uncertainties, given the available methods for determining, calculating or estimating the underlying information. It is important to understand our assurance conclusions in this context.

## Our independence, integrity and quality control

ERM CVS is an independent certification and verification body accredited by UKAS to ISO 17021:2015. Accordingly we maintain a comprehensive system of quality control, including documented policies and procedures regarding compliance with ethical requirements, professional standards, and applicable legal and regulatory requirements. Our quality management system is at least as demanding as the relevant sections of ISQM-1 and ISQM-2 (2022).

ERM CVS applies a Code of Conduct and related policies to ensure that its employees maintain integrity, objectivity, professional competence and high ethical standards in their work. Our processes are designed and implemented to ensure that the work we undertake is objective, impartial and free from bias and conflict of interest. Our certified management system covers independence and ethical requirements that are at least as demanding as the relevant sections of Parts A & B of the IESBA Code relating to assurance engagements.

The team that has undertaken this assurance engagement has extensive experience in conducting assurance on environmental, social, ethical and health and safety information, systems and processes, and provides no consultancy related services to Alcoa in any respect.

Beth C. B. Wyke

Beth Wyke  
Head of Corporate Assurance Services  
Malvern, PA

June 16, 2023

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**Table 1. Selected indicators for the 2022 reporting period in our limited assurance scope and disclosed by Alcoa in the Report.**

Indicator	Unit	Page number
<b>Environment</b>		
Direct (Scope 1) GHG emissions	Million metric tons of CO2e	83
Indirect (Scope 2 location based) GHG emissions		83
GHG Intensity (scope 1 + 2, refining and smelting segments)	Metric tons of CO2e per metric ton of aluminum	83
Scope 3 GHG Emissions	Million metric tons of CO2e: Total, Category 1, Category 3, Category 4, Category 9, Category 10	84
Perfluorocarbon Emissions	Million metric tons of CO2e: Total (smelters only)	83
Electricity from renewable sources	Percent (smelters only)	87
Energy consumption – Direct	Thousands of gigajoules: Total	86
Energy consumption – Purchased Electricity	Thousands of megawatt hours: Total	86
Operational Water Withdrawal (Inputs) (All WAF Categories)	Million cubic meters: Total (all sites), Total (Locations in Alcoa-defined Water-scarce areas)	107, 108
Operational Water Consumption (Outputs) (All WAF Categories)		107, 108
Operational Water Discharges (Outputs) (All WAF Categories)		107, 108
Water Use	Percent: Locations in Alcoa-defined Water-scarce Areas	105
Waste to Landfill	Thousands of metric tons: Total	118
Non-mineral waste generated	Thousands of metric tons: Total (Hazardous and non-hazardous)	118
Non-mineral waste recovered		118
Non-mineral waste disposed		118
Bauxite residue generated	Million metric tons	117
Active mining disturbance to mine rehabilitation ratio	Number	100
<b>Social</b>		
Community complaints raised through local complaint and grievance mechanism	Number: Total, per region	58
<b>Health and Safety</b>		
Fatality Incidents	Number: Total	126
FSI-Actual incidents (FSI-A)	Number: Total	126
Days Away, Restricted or Transfer (DART) incidents	Number: Total	126
Lost Work Day (LWD) incidents	Number: Total	127