

# Second-Party Opinion

## EGA Green Finance Framework



### Evaluation Summary



Sustainalytics is of the opinion that the EGA Green Finance Framework is credible and impactful and aligns with the four core components of the Green Bond Principles 2021 and the Green Loan Principles 2023. This assessment is based on the following:

**USE OF PROCEEDS** The eligible categories for the use of proceeds – Eco-efficient and Circular Economy Adapted Products, Production Technologies and Processes and Renewable Energy– are aligned with those recognized by the Green Bond Principles and the Green Loan Principles. Sustainalytics considers that investments in the eligible categories will lead to positive environmental impacts and advance the UN Sustainable Development Goals, specifically SDGs 7, 9 and 12.



**PROJECT EVALUATION AND SELECTION** EGA’s Green Finance Committee will be responsible for evaluating and selecting eligible assets in alignment with the eligibility criteria of the Framework. The Green Finance Committee has a monitoring process to identify and mitigate potential environmental and social risks associated with all allocation decisions made under the Framework. Sustainalytics considers the project selection process in line with market practice.



**MANAGEMENT OF PROCEEDS** EGA’s Treasury division will be responsible for the management and allocation of proceeds using an internal bond register through a portfolio approach. EGA intends to allocate proceeds in full within 36 months of issuance. Pending full allocation, proceeds will be temporarily held in EGA’s treasury liquidity portfolio, in cash or other short-term and liquid instruments. This is in line with market practice.



**REPORTING** EGA commits to report on allocation of proceeds on its website on an annual basis until full allocation. In addition, EGA intends to report on relevant impact metrics. Sustainalytics views EGA’s allocation and impact reporting as aligned with market practice.

---

<b>Evaluation date</b>	November 30, 2023
<b>Issuer Location</b>	Abu Dhabi, United Arab Emirates

---

### Report Sections

---

Introduction.....	2
Sustainalytics’ Opinion .....	3
Appendix .....	10

**For inquiries, contact the Sustainable Corporate Solutions project team:**

---

**Vijay Wilfred (Mumbai)**  
Project Manager  
vijay.wilfred@sustainalytics.com

---

**Javier Frisancho Salinas (Amsterdam)**  
Project Support

---

**Stefan Spataru (Amsterdam)**  
Project Support

---

**Enrico Tessadro (Amsterdam)**  
Client Relations  
susfinance.emea@sustainalytics.com  
(+44) 20 3880 0193

---

## Introduction

Emirates Global Aluminium PJSC (“EGA” or the “Company”) is a manufacturer of primary aluminium extrusion billets, unalloyed aluminium ingots and sow products. The Company operates aluminium smelters, an alumina refinery in the UAE, and a bauxite mine and associated export facilities in Guinea. Headquartered in Abu Dhabi, UAE, the Company employs 6,535 staff as at December 2021.<sup>1</sup>

EGA has developed the EGA Green Finance Framework dated November 2023 (the “Framework”) under which it intends to issue green bonds, private placements, convertible bonds,<sup>2</sup> hybrid instruments,<sup>3</sup> commercial papers and loans, and use the proceeds to finance or refinance, in whole or in part, existing or future projects intended to contribute in the transition to a low-carbon economy. The Framework defines eligibility criteria in two areas:

1. Eco-efficient and Circular Economy Adapted Products, Production Technologies and Processes
2. Renewable Energy

EGA engaged Sustainalytics to review the Framework and provide a Second-Party Opinion on the Framework’s environmental credentials and its alignment with the Green Bond Principles 2021 (GBP)<sup>4</sup> and the Green Loan Principles 2023 (GLP).<sup>5</sup> The Framework will be published in a separate document.<sup>6</sup>

### Scope of work and limitations of Sustainalytics’ Second-Party Opinion

Sustainalytics’ Second-Party Opinion reflects Sustainalytics’ independent<sup>7</sup> opinion on the alignment of the reviewed Framework with current market standards and the extent to which the eligible project categories are credible and impactful.

As part of the Second-Party Opinion, Sustainalytics assessed the following:

- The Framework’s alignment with the Green Bond Principles 2021, as administered by ICMA, and the Green Loan Principles 2023, as administered by LMA, APLMA and LSTA;
- The credibility and anticipated positive impacts of the use of proceeds; and
- The alignment of the issuer’s sustainability strategy and performance and sustainability risk management in relation to the use of proceeds.

For the use of proceeds assessment, Sustainalytics relied on its internal taxonomy, version 1.15 which is informed by market practice and Sustainalytics’ expertise as an ESG research provider.

As part of this engagement, Sustainalytics held conversations with various members of EGA’s management team to understand the sustainability impact of its business processes and planned use of proceeds, as well as the management of proceeds and reporting aspects of the Framework. EGA representatives have confirmed that: (1) they understand it is the sole responsibility of EGA to ensure that the information provided is complete, accurate and up to date; (2) that they have provided Sustainalytics with all relevant information and (3) that any provided material information has been duly disclosed in a timely manner. Sustainalytics also reviewed relevant public documents and non-public information.

This document contains Sustainalytics’ opinion of the Framework and should be read in conjunction with that Framework.

Any update of the present Second-Party Opinion will be conducted according to the agreed engagement conditions between Sustainalytics and EGA.

Sustainalytics’ Second-Party Opinion, while reflecting on the alignment of the Framework with market standards, is no guarantee of alignment nor warrants any alignment with future versions of relevant market

<sup>1</sup> EGA, “EGA 2021 Sustainability Report”, (2022), at: <https://www.ega.ae/media/3183/ega-2021-sustainability-report-en.pdf>

<sup>2</sup> Sustainalytics’ Second-Party Opinion is only valid until the time of conversion of the bond to common stock.

<sup>3</sup> EGA confirms to Sustainalytics that these instruments will be structured as debt and, in case of perpetual instruments, eligible green assets will be equal or more than the net proceeds while the instrument is outstanding.

<sup>4</sup> The Green Bond Principles are administered by the International Capital Market Association and are available at <https://www.icmagroup.org/green-social-and-sustainability-bonds/green-bond-principles-gbp/>.

<sup>5</sup> The Green Loan Principles are administered by the Loan Market Association, Asia Pacific Loan Market Association and Loan Syndications and Trading Association and are available at <https://www.lsta.org/content/green-loan-principles/>

<sup>6</sup> The EGA Green Finance Framework will be available at: <https://www.ega.ae/en/sustainability>

<sup>7</sup> When operating multiple lines of business that serve a variety of client types, objective research is a cornerstone of Sustainalytics and ensuring analyst independence is paramount to producing objective, actionable research. Sustainalytics has therefore put in place a robust conflict management framework that specifically addresses the need for analyst independence, consistency of process, structural separation of commercial and research (and engagement) teams, data protection and systems separation. Last but not the least, analyst compensation is not directly tied to specific commercial outcomes. One of Sustainalytics’ hallmarks is integrity, another is transparency.

standards. Furthermore, Sustainalytics' Second-Party Opinion addresses the anticipated impacts of eligible projects expected to be financed with bond and loan proceeds but does not measure the actual impact. The measurement and reporting of the impact achieved through projects financed under the Framework is the responsibility of the Framework owner. EGA is encouraged to update the Framework after 24 (twenty-four) months from the evaluation date, if necessary, and seek an update to the Second-Party Opinion to ensure ongoing alignment of the Framework with market standards and expectations.

In addition, the Second-Party Opinion opines on the potential allocation of proceeds but does not guarantee the realised allocation of the bond and loan proceeds towards eligible activities.

No information provided by Sustainalytics under the present Second-Party Opinion shall be considered as being a statement, representation, warrant or argument, either in favour or against, the truthfulness, reliability or completeness of any facts or statements and related surrounding circumstances that EGA has made available to Sustainalytics for the purpose of this Second-Party Opinion.

## Sustainalytics' Opinion

### Section 1: Sustainalytics' Opinion on the EGA Green Finance Framework

Sustainalytics is of the opinion that the EGA Green Finance Framework is credible, impactful and aligns with the four core components of the GBP and GLP. Sustainalytics highlights the following elements of EGA's Green Finance Framework:

- Use of Proceeds:
  - The eligible categories, Eco-efficient and Circular Economy Adapted Products, Production Technologies and Processes and Renewable Energy are aligned with those recognized by the GBP and GLP.
  - EGA has defined a look-back period of three years for the refinancing of operating expenditures under the Framework, which Sustainalytics considers to be in line with market practice.
  - Under the Eco-efficient and Circular Economy Adapted Products, Production Technologies and Processes category, EGA may finance and refinance assets and expenditures for aluminium production according to the following criteria:
    - Primary aluminium having a carbon intensity below 6.21 tCO<sub>2</sub>e/t aluminium
      - The Framework will limit expenditures related to primary aluminium production to facilities expected to have a carbon intensity below 6.21 tCO<sub>2</sub>e/t aluminium by 2026. Sustainalytics notes that the carbon intensity threshold is aligned with the Transition Pathway Initiative's (TPI) 2026 Below 2°C scenario benchmark for aluminium production (6.21 tCO<sub>2</sub>e/t aluminium).<sup>8</sup> By limiting the use of proceeds to these assets, the financing is expected to contribute to substantial climate change mitigation and is likely to avoid a lock-in of carbon-intensive assets.<sup>9</sup>
      - EGA has communicated to Sustainalytics that financing includes both new facilities and retrofits. Financing for retrofits may include capex for the interconnectivity of production facilities to the grid, in order to source renewable energy to meet the intensity threshold above.
    - Secondary aluminium with 50-70% scrap aluminium input.

<sup>8</sup> For the calculation of the TPI's intensity threshold, aluminium production covers three processes: alumina refining, aluminium smelting and aluminium recycling. TPI, "Carbon Performance assessment of aluminium producers: note on methodology", (2023), at: <https://www.transitionpathwayinitiative.org/publications/uploads/2023-carbon-performance-assessment-of-aluminium-producers-note-on-methodology-v3-0>

<sup>9</sup> TPI, "Carbon Performance assessment of aluminium producers: note on methodology", (2023), at: <https://www.transitionpathwayinitiative.org/publications/uploads/2023-carbon-performance-assessment-of-aluminium-producers-note-on-methodology-v3-0>

- EGA confirmed that the rest of the primary aluminium used will have a carbon intensity of 6.21 tCO<sub>2</sub>e/t aluminium, in line with the 2026 TPI below-2°C scenario trajectory.<sup>10</sup>
  - Sustainalytics considers these activities to be in line with market practice.
- Under the Renewable Energy category, the Company may finance and refinance assets and expenditures for renewable energy production according to the following criteria:
  - Construction and operation of electricity generation facilities using solar photovoltaic or concentrated solar power
    - For concentrated solar power facilities, at least 85% of the electricity will be derived from solar energy resources.
  - Power purchase agreements (PPAs)
    - EGA has communicated to Sustainalytics that the PPAs consist of purchasing electricity directly in the form of a medium- to long-term electricity tariff agreement (longer than five years) to be supplied with renewable energy from the grid.
  - Low carbon energy sources with life cycle emissions intensity lower than 100 gCO<sub>2</sub>e/kWh
    - The Company has communicated to Sustainalytics that the Framework limits financing to wind power generation and green hydrogen through water electrolysis powered by renewable electricity.
  - EGA has confirmed to Sustainalytics that projects under this category are part of the Company's broader decarbonization pathway and are not directed towards primary aluminium production.
  - Sustainalytics considers expenditures under this category to be aligned with market practice.
- The Framework excludes projects for which the purpose is fossil energy generation, nuclear energy generation, weapons and defence or potentially environmentally harmful resource extraction (including rare-earth elements and fossil fuels).
- Project Evaluation and Selection:
  - EGA's Green Finance Committee (the "Committee") will be responsible for evaluating and selecting eligible assets following the eligibility criteria in the Framework. The Committee is chaired by the Chief Financial Officer and consists of members from the Treasury, Corporate Development & Capital Markets, Sustainability and Legal & Compliance departments.
  - The Committee has a monitoring process to identify and mitigate potential environmental and social risks associated with all the allocation decisions made under the Framework. For more details, please see Section 2.
  - Based on the Company's establishment of the Committee and its commitment to undertake an environmental and social risk evaluation of its assets, Sustainalytics considers this process to be in line with market practice.
- Management of Proceeds:
  - The Company's Treasury division will be responsible for the management and allocation of proceeds and will track the proceeds using an internal bond register through a portfolio approach.
  - EGA intends to allocate proceeds in full within 36 months of issuance. Pending full allocation, proceeds will be temporarily held in the Company's liquidity portfolio in cash or other short-term liquid instruments, subject to the Framework's exclusion criteria.
  - The Company has communicated to Sustainalytics that instruments issued under the Framework may include multi-tranche loan facilities. EGA intends to label only those tranches of such facilities whose proceeds will be allocated according to the eligibility criteria in the Framework.
  - Based on the use of an internal bond register and disclosure of the temporary use of proceeds Sustainalytics considers this process to be in line with market practice.
- Reporting:

<sup>10</sup> Sustainalytics notes that secondary aluminium typically accounts for 5% of the emissions needed to produce primary aluminium, which can reduce a company's overall emissions intensity. TPI, "Carbon Performance assessment of aluminium producers: note on methodology", (2023), at: <https://www.transitionpathwayinitiative.org/publications/uploads/2023-carbon-performance-assessment-of-aluminium-producers-note-on-methodology-v3-0>

- The Company will report annually on the allocation of proceeds and corresponding impact in a standalone report, which will be published on its website until full allocation. EGA has communicated to Sustainalytics that if it obtains revolving credit facilities under the Framework, it will report on allocation until loan maturity.
- The allocation reporting may include: i) amount of allocated proceeds; ii) balance of unallocated proceeds; iii) total amount of instruments outstanding; and iv) amount or percentage of financing and refinancing.
- The impact reporting may include, on a best effort basis, metrics such as amount of aluminium produced or recycled, avoided GHG emissions (tCO<sub>2</sub>e), annual energy capacity (GW) and annual energy generation (GWh).
- Based on EGA's commitment to both allocation and impact reporting, Sustainalytics considers this process to be in line with market practice.

### Alignment with Green Bond Principles 2021 and Green Loan Principles 2023

Sustainalytics has determined that the EGA Green Finance Framework aligns with the four core components of the GBP and GLP. For detailed information, please refer to Appendix 1: Green Bond/Green Bond Programme External Review Form.

## Section 2: Sustainability Strategy of EGA

### Contribution to EGA's sustainability strategy

In 2021, EGA committed to reach net zero emissions by 2050 and developed a roadmap to address emissions from all of its operations.<sup>11</sup> The Company has not developed interim targets but reports that it plans to do so subsequent to the finalization of a renewable energy agreement with Abu Dhabi National Energy Company PJSC (TAQA) and Dubai Holding and Emirates Water and Electricity Company (EWEC). EGA's roadmap has eight focus areas: i) electricity generation; ii) smelting; iii) casting; iv) alumina refining; v) bauxite mining; vi) supply chain; vii) recycling; and viii) nature-based sequestration.

To reach its net zero goal, EGA is undertaking a number of initiatives to reduce its overall carbon footprint.<sup>12</sup> For its bauxite mining operations EGA is currently assessing solar and hydro power sources as well as the use of electric light vehicles and biofuels for heavy equipment. Under electricity generation, for its operations in the UAE, EGA announced an initiative with Abu Dhabi National Energy Company PJSC (TAQA) and Dubai Holding and Emirates Water and Electricity Company (EWEC) under which EGA would divest its electricity generation assets and source power from the grid, supported by using an increasing proportion of renewable and low-carbon energy. Additionally, as at 2021, all procured renewable energy in the UAE is sourced from solar farms with the International Renewable Energy Certification Standard Foundation (I-REC Standard).<sup>13,14</sup> For its alumina refining and casting operations, EGA plans to electrify boilers combined with renewable energy sources, such as solar thermal boilers, and use green hydrogen for heat furnaces. To address emissions in its smelting operations, EGA is exploring partnerships to implement new technologies that improve the process. Under recycling, EGA plans to build its first recycling facility in the UAE to start operations in 2024. EGA aims to engage with existing and new suppliers mainly of raw materials and shipping to address emissions from its supply chain and has started to develop a portfolio of nature-based sequestration projects, including mangroves and sea grass in the UAE.<sup>15</sup> Additionally, by 2030 the Company intends to produce only certified products by the Aluminium Stewardship Initiative (ASI),<sup>16</sup> which provides a global standard for the aluminium value chain on environmental, social and governance performance.

EGA also provides transparency on its progress to reduce emissions through disclosures aligned with credible reporting standards. Since 2017, EGA has published sustainability reports following the Global Reporting Initiative (GRI) Standards<sup>17</sup> and the Reporting and disclosure requirements set by ASI.<sup>18</sup> The 2017 report includes reported scope 1 and 2 emissions following the GHG Protocol<sup>19</sup> from the Company's operations in

<sup>11</sup> EGA, "EGA 2021 Sustainability Report", (2022), at: <https://www.ega.ae/media/3183/ega-2021-sustainability-report-en.pdf>

<sup>12</sup> EGA, "EGA 2021 Sustainability Report", (2022), at: <https://www.ega.ae/media/3183/ega-2021-sustainability-report-en.pdf>

<sup>13</sup> I-REC Standard, "About The I-REC Standard Foundation", at: <https://www.irecstandard.org/about-us/>

<sup>14</sup> EGA, "EGA 2021 Sustainability Report", (2022), at: <https://www.ega.ae/media/3183/ega-2021-sustainability-report-en.pdf>

<sup>15</sup> Ibid.

<sup>16</sup> ASI, "ASI Performance Standard", at: <https://aluminium-stewardship.org/asi-standards/performance-standard>

<sup>17</sup> GRI, "The global standards for sustainability impacts", at: <https://www.globalreporting.org/standards/>

<sup>18</sup> ASI, "Document Centre", at: [https://aluminium-stewardship.org/knowledge-hub/document-centre#:~:text=The%20ASI%20Performance%20Standard%20\(2017,in%20the%20aluminium%20value%20chain.](https://aluminium-stewardship.org/knowledge-hub/document-centre#:~:text=The%20ASI%20Performance%20Standard%20(2017,in%20the%20aluminium%20value%20chain.)

<sup>19</sup> GHG Protocol, "About Us", at: <https://ghgprotocol.org/about-us>

the UAE from 2014 to 2017,<sup>20</sup> and since 2019, the report also includes reported emissions from the Company's operations in Guinea.<sup>21</sup> Additionally, EGA published its 2021 Sustainability Report following the Task Force for Climate-Related Financial Disclosures recommendations.<sup>22</sup>

In 2021, EGA established an ESG Committee chaired by EGA's CEO along with the Executive Vice-President for Health, Safety, Sustainability, Environment, and Quality as co-chair and the Sustainability Manager as Committee Liaison. The committee is responsible for providing oversight of climate issues, monitoring compliance, identifying risks, anticipating changes in stakeholder expectations and regulatory requirements, assessing impact, promoting best practices, and setting climate-related targets, actions, policies, and strategic direction across EGA and its subsidiaries.<sup>23</sup>

Based on the above, Sustainalytics is of the opinion that the EGA Green Finance Framework is aligned with the Company's overall sustainability strategy and initiatives and will further the Company's efforts to reach net zero emissions by 2050.

### Approach to managing environmental and social risks associated with the projects

Sustainalytics recognizes that the use of proceeds from the Framework will be directed towards eligible projects that are expected to have a positive environmental impact. However, Sustainalytics is aware that such eligible projects could also lead to negative environmental and social outcomes. Some key environmental and social risks potentially associated with the eligible projects include issues related to carbon – own operations, effluents and waste generated during operations, land use and biodiversity, supply chain, human rights and occupational health and safety, and community relations.

Sustainalytics is of the opinion that EGA is able to manage or mitigate potential risks through implementation of the following:

- To manage the Company's emissions and overall environmental risks in the UAE, all of EGA's operational facilities are managed through an environmental management system that includes site-specific environmental management plans developed in accordance with regulatory requirements and technical guidelines issued by the relevant environmental regulators.<sup>24</sup> All of EGA's smelting and casting facilities are certified under the ASI Performance Standards, which include 62 environmental, social and governance principles and criteria to address sustainability issues in the aluminium value chain. Additionally, they are certified against the International Organization for Standardization (ISO) 14001:2015,<sup>25</sup> which is intended to ensure that the Company manages its environmental responsibilities in a systematic manner.<sup>26</sup> Representatives from environmental regulators and third parties audit these facilities periodically to confirm the suitability of our environmental monitoring and controls. In Guinea, EGA has developed a site-specific social and environmental management system and plan for air quality, biodiversity, dredging, noise control, soil management, water management, rehabilitation and reforestation in accordance with the International Finance Corporation's (IFC) Performance Standards<sup>27</sup> and the Equator Principles,<sup>28</sup> which an independent third party verifies periodically .
- Regarding water management, in the UAE, EGA uses water from desalination for its operations and recycled water from its onsite sewage treatment plants for landscape irrigation. EGA monitors the quality of the water returned to the sea for parameters including temperature, salinity and dissolved oxygen in accordance with local regulations.<sup>29,30,31</sup> In Guinea, EGA manages its water-related impacts through a water management plan and water discharges are monitored and compared against the IFC Performance Standards, World Bank Guidelines,<sup>32</sup> Equator Principles and the African Development

<sup>20</sup> EGA, "EGA 2017 Sustainability Report", (2018), at: <https://www.ega.ae/media/2142/ega-2017-sustainability-report.pdf>

<sup>21</sup> EGA, "EGA 2019 Sustainability Report", (2020), at: <https://www.ega.ae/media/2356/ega-2019-sustainability-report.pdf>

<sup>22</sup> EGA, "EGA 2021 Sustainability Report", (2022), at: <https://www.ega.ae/media/3183/ega-2021-sustainability-report-en.pdf>

<sup>23</sup> EGA, "EGA 2021 Sustainability Report", (2022), at: <https://www.ega.ae/media/3183/ega-2021-sustainability-report-en.pdf>

<sup>24</sup> Ibid.

<sup>25</sup> ISO, "ISO 14001:2015 - Environmental management systems", at: <https://www.iso.org/standard/60857.html>

<sup>26</sup> EGA, "EGA 2021 Sustainability Report", (2022), at: <https://www.ega.ae/media/3183/ega-2021-sustainability-report-en.pdf>

<sup>27</sup> IFC, "IFC's Performance Standards on Environmental and Social Sustainability", at: <https://www.ifc.org/en/insights-reports/2012/ifc-performance-standards>

<sup>28</sup> Equator Principles, "About the Equator Principles", at: <https://equator-principles.com/about-the-equator-principles/>

<sup>29</sup> Abu Dhabi Department of Energy, "Trade Effluent Control Regulations 2022", (2022), at: <https://www.doe.gov.ae/-/media/Project/DOE/Department-Of-Energy/Media-Center-Publications/Regulations/English/Trade-Effluent-Control-Regulations-2022.pdf>

<sup>30</sup> Abu Dhabi Quality and Conformity Council, "Environmental Specifications for Land-Based Liquid Discharges to the Marine Environment", (2017), at: <https://qcc.gov.ae/-/media/Project/QCC/QCC/Documents/Quality-Infrastructure/Documents/Abu-Dhabi-Specification/Abu-Dhabi-Specifications/ADS-23-Environmental-Specifications-for-Land-Based-Liquid-Discharges-to-Marine-Environment.pdf>

<sup>31</sup> EGA, "EGA 2021 Sustainability Report", (2022), at: <https://www.ega.ae/media/3183/ega-2021-sustainability-report-en.pdf>

<sup>32</sup> World Bank, "Occupational health and safety guidelines", (1988), at: <https://documents1.worldbank.org/curated/en/308631492969180329/pdf/multi0page.pdf>

Bank's (AfDB) Integrated Safeguards System.<sup>33,34</sup> For waste management, for all of EGA's operations, waste is currently stored and controlled onsite and EGA is exploring opportunities for reuse or recycling of this waste. In Guinea, EGA has developed a waste management plan in accordance with IFC's Performance Standards and the Equator Principles.<sup>35</sup>

- To minimize risks related to biodiversity and land use, in Guinea EGA has a biodiversity management plan prepared in accordance with IFC Performance Standards.<sup>36</sup> In the UAE, to ensure EGA's operations do not disturb the beach ecosystem and minimise the risk of predation by any feral animals, EGA monitors the beach adjacent to its operations throughout the nesting season, conducting daily inspections, tracking nesting patterns, and installing protective buffers to keep nests safe from harm.
- To manage supply chain risks, EGA has established a Responsible Sourcing Standard,<sup>37</sup> through which it set requirements for: i) supplier's business conduct; ii) supplier's workplace addressing child labour and forced labour; iii) communities and environment protection addressing indigenous rights, cultural heritage and biodiversity; iv) the implementation of a due diligence management system that identifies and manages the risks included in the standard; and v) sourcing minerals requiring suppliers to follow the recommendations in the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas.<sup>38</sup>
- To address human rights risks, EGA has established a Code of Ethics, through which it sets a commitment to respect and support human rights in the workplace and to perform due diligence on suppliers and business related to migrant workers. Sustainalytics acknowledges the co-operation between the International Labour Organization and the UAE in establishing human rights and labour rights standards. Nonetheless, given the record of such violations in the UAE, Sustainalytics considers this to be an ongoing risk. As noted above, EGA has established a due diligence process that addresses human and labour rights in its own operations and business partners.
- Regarding occupational health and safety, EGA has established a health and safety management approach, through which it commits to providing safe and healthy working conditions. All of EGA's facilities in the UAE operate according to an occupational health and safety management system certified to the ISO 45001:2018,<sup>39</sup> through which the Company commits to assessing risks related to health and safety and formulating plans to address these risks. All of its Abu Dhabi operational management systems are also developed in alignment with Abu Dhabi's Occupational Safety and Health Centre's (OSHAD) System Framework<sup>40</sup> while all smelting and casting facilities in the UAE are certified under the ASI Performance Standards, which check for the presence of an occupational health and safety management system as well as employees' engagement on safety issues. In Guinea, EGA operates according to occupational health and safety management systems developed in accordance with the IFC Performance Standards, World Bank Guidelines, Equator Principles, African Development Bank's (AfDB) Integrated Safeguards System and regulatory requirements of the Guinean Government.<sup>41</sup>
- In terms of community relations and stakeholder engagement, EGA operates planned and targeted community engagement programmes across all of its sites in the UAE and Guinea with stakeholders such as community representatives, non-governmental organisations, educational institutions and respective governments. Through this stakeholder engagement, the Company identifies material issues and evaluates its impact levels and risks on stakeholders and business operations. All of the Company's community impact assessments and project planning in Guinea are undertaken in accordance with international standards such as the IFC Performance Standards, which require informed consultation and participation with indigenous people throughout the project process. An independent third-party monitors compliance every six months. In the UAE, EGA has a dedicated corporate social responsibility team that engages with local communities, regulatory authorities and non-profit organisations to gather feedback and develop community engagement projects.<sup>42</sup>

<sup>33</sup> AfDB, "Integrated Safeguards System - April 2023", (2023), at: <https://www.afdb.org/en/documents/integrated-safeguards-system-april-2023#:~:text=In%202013%2C%20the%20African%20Development,policies%2C%20as%20well%20as%20cross%2D>

<sup>34</sup> Ibid.

<sup>35</sup> Ibid.

<sup>36</sup> IFC, "IFC Project Information & Data Portal - Guinea Alumina Project", at: <https://disclosures.ifc.org/project-detail/SPI/24374/guinea-alumina-project>

<sup>37</sup> EGA, "Responsible Sourcing Standard", at: <https://www.ega.ae/media/3356/ega000183-responsible-sourcing-standards-may-2023.pdf>

<sup>38</sup> OECD, "OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas", at: <https://www.oecd.org/daf/inv/mne/mining.htm>

<sup>39</sup> Ibid.

<sup>40</sup> Abu Dhabi Health Center, "Abu Dhabi Occupational Safety and Health System Framework (OSHAD-SF)", (2019), at: <https://www.adphc.gov.ae/-/media/Project/ADPHC/ADPHC/PDF/OSHAD-SF/Guidance-Documents/Building-the-Buss-Case--Eng.pdf>

<sup>41</sup>

<sup>42</sup> EGA, "EGA 2021 Sustainability Report", (2022), at: <https://www.ega.ae/media/3183/ega-2021-sustainability-report-en.pdf>

Based on these policies, standards and assessments, Sustainalytics is of the opinion that EGA has adequate policies and measures in place and is well positioned to manage and mitigate environmental and social risks commonly associated with the eligible categories.

### Section 3: Impact of Use of Proceeds

The two use of proceeds categories are aligned with those recognized by the GBP and GLP. Sustainalytics has focused on one below where the impact is specifically relevant in the local context.

#### Importance of decarbonizing the global aluminium sector

In 2022, the aluminium industry emitted approximately 270 Mt of direct CO<sub>2</sub> emissions globally, representing 3% of the world's direct industrial CO<sub>2</sub> emissions.<sup>43</sup> Almost 85% of the direct CO<sub>2</sub> emissions from the aluminium sector originate from alumina refining, anode production and aluminium smelting. To conform to a scenario of net zero emissions by 2050, the global average direct emissions intensity of aluminium production must accelerate from a 2% decrease per year to a 4% decrease per year by 2030.<sup>44</sup> The International Energy Agency (IEA) reports that, since 2020, much of the potential for energy efficiency improvements has already been exploited. Direct emissions can be further decreased by deploying near zero-emission technologies, which rely on bioenergy, hydrogen or near zero-emission electricity, and by increasing the share of post-consumer aluminium recycling.<sup>45</sup> Additionally, decarbonizing the electricity needed in the aluminium production would contribute to reducing the material's indirect emissions.<sup>46</sup> According to TPI, secondary aluminium typically accounts for 5% of the emissions needed to produce primary aluminium, indicating that it can significantly reduce a company's overall emissions intensity.<sup>47</sup>

Aluminium manufacturers worldwide have introduced several innovations and technologies aimed at decarbonizing aluminium production.<sup>48</sup> In 2021, inert anodes were firstly introduced, processing one tonne of aluminium per day per cell. For alumina refining, technologies such as electric boilers, mechanical vapour recompression and using hydrogen to generate heat are solutions that have been under feasibility tests and studies since 2022.<sup>49</sup> In addition, to switch to renewable energy sources and further support the renewable energy penetration in electricity grids, retrofit-ready technology has been developed to allow smelters to vary their energy usage by up to 30% in order to match electricity supply and price fluctuations.<sup>50</sup>

In 2021, the aluminium industry's International Aluminium Institute (IAI) established potential technology pathways aligned with the goals of the Paris Agreement.<sup>51</sup> The Mission Possible initiative, a community of CEOs from carbon-intensive industries, in collaboration with IAI also developed a transition strategy for the aluminium industry.<sup>52</sup> Finally, the Science Based Targets initiative has developed guidance for aluminium producers to set science-based targets,<sup>53</sup> the Assessing Low-Carbon Transition has produced a methodology for organizations to transition to low-carbon aluminium,<sup>54</sup> the Aluminium Stewardship Initiative has released standards to track performance against a 1.5 °C scenario,<sup>55</sup> and the TPI has developed decarbonization trajectories based on emissions intensities for the 1.5 °C scenario and the below 2°C scenario, which is the trajectory that the Company follows.

Based on the above context, Sustainalytics expects EGA's efforts to decarbonize its aluminium production to contribute towards the decarbonization of the aluminium industry and more broadly to meeting global climate goals.

<sup>43</sup> IEA, "Aluminium", at: <https://www.iea.org/energy-system/industry/aluminium#tracking>

<sup>44</sup> Ibid.

<sup>45</sup> Ibid.

<sup>46</sup> IEA, "Aluminium", at: <https://www.iea.org/energy-system/industry/aluminium#tracking>

<sup>47</sup> TPI, "Carbon Performance assessment of aluminium producers: note on methodology", (2023), at:

<https://www.transitionpathwayinitiative.org/publications/uploads/2023-carbon-performance-assessment-of-aluminium-producers-note-on-methodology-v3-0>

<sup>48</sup> IEA, "Aluminium", at: <https://www.iea.org/energy-system/industry/aluminium#tracking>

<sup>49</sup> Ibid.

<sup>50</sup> Ibid.

<sup>51</sup> IAI, "Aluminium Sector Greenhouse Gas Pathways to 2050", (2021), at: <https://international-aluminium.org/resource/aluminium-sector-greenhouse-gas-pathways-to-2050-2021/>

<sup>52</sup> Mission Possible Partnership, "Aluminium", at: <https://missionpossiblepartnership.org/wp-content/uploads/2023/04/Making-1.5-Aligned-Aluminium-possible.pdf>

<sup>53</sup> Science Based Targets initiative, "Aluminium", at: <https://sciencebasedtargets.org/sectors/aluminium>

<sup>54</sup> ACT, "Aluminium", (2021), at: <https://actinitiative.org/wp-content/uploads/pdf/act-aluminium-long-version-methodology-road-test-v1.1.pdf>

<sup>55</sup> Aluminium Stewardship Initiative, "Issue Brief: Low Carbon Aluminium", at: <https://aluminium-stewardship.org/low-carbon-aluminium>



### Contribution to SDGs

The Sustainable Development Goals were adopted in September 2015 by the United Nations General Assembly and form part of an agenda for achieving sustainable development by 2030. The instruments issued under the Framework are expected to help advance the following SDGs and targets:

Use of Proceeds Category	SDG	SDG target
Eco-efficient and Circular Economy adapted Products, Production Technologies and Processes	7. Affordable and clean energy	7.3 By 2030, double the global rate of improvement in energy efficiency
	9. Industry, innovation and infrastructure	9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities
	12. Responsible Consumption and Production	12.4 By 2030, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment
Renewable Energy	7. Affordable and clean energy	7.2 By 2030, increase substantially the share of renewable energy in the global energy mix

### Conclusion

EGA has developed the EGA Green Finance Framework under which it may issue green bonds, private placements, convertible bonds, hybrid instruments, commercial papers and loans, and use the proceeds to finance or refinance, in whole or in part, existing or future projects intended to contribute in the transition to a low-carbon economy. Sustainalytics considers that the eligible projects are expected to provide positive environmental impacts.

The EGA Green Finance Framework outlines processes for tracking, allocation and management of proceeds, and makes commitments for EGA to report on allocation and impact. Sustainalytics considers that the EGA Green Finance Framework is aligned with EGA's overall sustainability strategy and that use of proceeds will contribute to the advancement of the UN Sustainable Development Goals 7, 9 and 12. Additionally, Sustainalytics considers that EGA has adequate measures to identify, manage and mitigate environmental and social risks commonly associated with the eligible projects.

Based on the above, Sustainalytics is confident that EGA is well positioned to issue green instruments and that the EGA Green Finance Framework is robust, transparent and in alignment with the four core components of the Green Bond Principles 2021 and Green Loan Principles 2023.

## Appendix

### Appendix 1: Green Bond / Green Bond Programme - External Review Form

#### Section 1. Basic Information

Issuer name: Emirates Global Aluminium PJSC

Green Bond ISIN or Issuer Green Bond Framework Name, if applicable: EGA Green Finance Framework

Review provider's name: Sustainalytics

Completion date of this form: November 30, 2023

Publication date of review publication:

Original publication date *[please fill this out for updates]*:

#### Section 2. Review overview

##### SCOPE OF REVIEW

The review:

- assessed the 4 core components of the Principles (**complete review**) and confirmed the alignment with the GBP/SBP/SBG (*delete where appropriate*).
- assessed only some of them (**partial review**) and confirmed the alignment with the GBP/SBP/SBG (*delete where appropriate*); please indicate which ones:
  - Use of Proceeds
  - Management of Proceeds
  - Process for Project Evaluation and Selection
  - Reporting
- assessed the alignment with other regulations or standards (CBI, EU GBS, ASEAN Green Bond Standard, ISO 14030, etc.); please indicate which ones:

##### ROLE(S) OF INDEPENDENT REVIEW PROVIDER

- Second Party Opinion
- Verification
- Other (please specify):
- Certification
- Scoring/Rating

##### Does the review include a sustainability quality score?

- Of the issuer
- Of the Framework
- Of the project
- Other (please specify):

- No scoring

### ASSESSMENT OF THE PROJECT(S)

#### Does the review include:

- The environmental and/or social features of the type of project(s) intended for the Use of Proceeds?
- The environmental and/or social benefits and impact targeted by the eligible Green and/or Social Project(s) financed by the Green, Social or Sustainability Bond?
- The potentially material environmental and/or social risks associated with the project(s) (where relevant)?

### ISSUER'S OVERARCHING OBJECTIVES

#### Does the review include:

- An assessment of the issuer's overarching sustainability objectives and strategy, and the policies and/or processes towards their delivery?
- An identification and assessment of environmental, social and governance related risks of adverse impact through the Issuer's [actions] and explanations on how they are managed and mitigated by the issuer?
- A reference to the issuer's relevant regulations, standards, or frameworks for sustainability-related disclosure and reporting?

### CLIMATE TRANSITION STRATEGY

#### Does the review assess:

- The issuer's climate transition strategy & governance?
- The alignment of both the long-term and short/medium-term targets with the relevant regional, sector, or international climate scenario?
- The credibility of the issuer's climate transition strategy to reach its targets?
- The level/type of independent governance and oversight of the issuer's climate transition strategy (e.g. by independent members of the board, dedicated board sub-committees with relevant expertise, or via the submission of an issuer's climate transition strategy to shareholders' approval).
- If appropriate, the materiality of the planned transition trajectory in the context of the issuers overall business (including the relevant historical datapoints)?
- The alignment of the issuer's proposed strategy and targets with appropriate science-based targets and transition pathways that are deemed necessary to limit climate change to targeted levels?
- The comprehensiveness of the issuer's disclosure to help investors assess its performance holistically?

**Overall comment on this section:**

## Section 3. Detailed review

### 1. USE OF PROCEEDS

#### Does the review assess:

- the environmental/social benefits of the project(s)?
- whether those benefits are quantifiable and meaningful?
- for social projects, whether the target population is properly identified?

**Does the review assess if the issuer provides clear information on:**

- the estimated proceeds allocation per project category (in case of multiple projects)?
- the estimated share of financing vs. re-financing (and the related lookback period)?

**Overall comment on this section:**

The eligible categories for the use of proceeds – Eco-efficient and Circular Economy Adapted Products, Production Technologies and Processes and Renewable Energy– are aligned with those recognized by the Green Bond Principles and the Green Loan Principles. Sustainalytics considers that investments in the eligible categories will lead to positive environmental impacts and advance the UN Sustainable Development Goals, specifically SDGs 7, 9 and 12.

## 2. PROCESS FOR PROJECT EVALUATION AND SELECTION

**Does the review assess:**

- whether the eligibility of the project(s) is aligned with official or market-based taxonomies or recognised international standards? Please specify which ones. *Sustainalytics has a proprietary taxonomy which is influenced by the EU taxonomy, Climate Bonds Initiative taxonomy as well as international standards*
- whether the eligible projects are aligned with the overall sustainability strategy of the issuer and/or if the eligible projects are aligned with material ESG-related objectives in the issuer's industry?
- the process and governance to set the eligibility criteria including, if applicable, exclusion criteria?
- the processes by which the issuer identifies and manages perceived social and environmental risks associated with the relevant project(s)?
- any process in place to identify mitigants to known material risks of negative social and/or environmental impacts from the relevant project(s)?

**Overall comment on this section:**

EGA's Green Finance Committee will be responsible for evaluating and selecting eligible assets in alignment with the eligibility criteria of the Framework. The Green Finance Committee has a monitoring process to identify and mitigate potential environmental and social risks associated with all allocation decisions made under the Framework. Sustainalytics considers the project selection process in line with market practice.

## 3. MANAGEMENT OF PROCEEDS

**Does the review assess:**

- the issuer's policy for segregating or tracking the proceeds in an appropriate manner?
- the intended types of temporary investment instruments for unallocated proceeds?
- Whether an external auditor will verify the internal tracking of the proceeds and the allocation of the funds?

**Overall comment on this section:**

EGA's Treasury division will be responsible for the management and allocation of proceeds using an internal bond register through a portfolio approach. EGA intends to allocate proceeds in full within 36 months of issuance. Pending full allocation, proceeds will be temporarily held in EGA's treasury liquidity portfolio, in cash or other short-term and liquid instruments. This is in line with market practice.

## 4. REPORTING

**Does the review assess:**

- the expected type of allocation and impact reporting (bond-by-bond or on a portfolio basis)?
- the frequency and the means of disclosure?
- the disclosure of the methodology of the expected or achieved impact of the financed project(s)?

**Overall comment on this section:**

EGA commits to report on allocation of proceeds on its website on an annual basis until full allocation. In addition, EGA intends to report on relevant impact metrics. Sustainalytics views EGA's allocation and impact reporting as aligned with market practice.

#### Section 4. Additional Information

**Useful links** (e.g. to the external review provider's methodology or credentials, to the full review, to issuer's documentation, etc.)

**Analysis of the contribution of the project(s) to the UN Sustainable Development Goals:**

**Additional assessment in relation to the issuer/bond framework/eligible project(s):**

#### ABOUT ROLE(S) OF INDEPENDENT REVIEW PROVIDERS AS DEFINED BY THE GBP

- i. **Second-Party Opinion:** An institution with environmental expertise, that is independent from the issuer may issue a Second-Party Opinion. The institution should be independent from the issuer's adviser for its Green Bond framework, or appropriate procedures, such as information barriers, will have been implemented within the institution to ensure the independence of the Second-Party Opinion. It normally entails an assessment of the alignment with the Green Bond Principles. In particular, it can include an assessment of the issuer's overarching objectives, strategy, policy and/or processes relating to environmental sustainability, and an evaluation of the environmental features of the type of projects intended for the Use of Proceeds.
- ii. **Verification:** An issuer can obtain independent verification against a designated set of criteria, typically pertaining to business processes and/or environmental criteria. Verification may focus on alignment with internal or external standards or claims made by the issuer. Also, evaluation of the environmentally sustainable features of underlying assets may be termed verification and may reference external criteria. Assurance or attestation regarding an issuer's internal tracking method for use of proceeds, allocation of funds from Green Bond proceeds, statement of environmental impact or alignment of reporting with the GBP, may also be termed verification.
- iii. **Certification:** An issuer can have its Green Bond or associated Green Bond framework or Use of Proceeds certified against a recognised external green standard or label. A standard or label defines specific criteria, and alignment with such criteria is normally tested by qualified, accredited third parties, which may verify consistency with the certification criteria.
- iv. **Green Bond Scoring/Rating:** An issuer can have its Green Bond, associated Green Bond framework or a key feature such as Use of Proceeds evaluated or assessed by qualified third parties, such as specialised research providers or rating agencies, according to an established scoring/rating methodology. The output may include a focus on environmental performance data, the process relative to the GBP, or another benchmark, such as a 2-degree climate change scenario. Such scoring/rating is distinct from credit ratings, which may nonetheless reflect material environmental risks.

## Disclaimer

**Copyright ©2023 Sustainalytics. All rights reserved.**

The information, methodologies and opinions contained or reflected herein are proprietary of Sustainalytics and/or its third party suppliers (Third Party Data), and may be made available to third parties only in the form and format disclosed by Sustainalytics, or provided that appropriate citation and acknowledgement is ensured. They are provided for informational purposes only and (1) do not constitute an endorsement of any product or project; (2) do not constitute investment advice, financial advice or a prospectus; (3) cannot be interpreted as an offer or indication to buy or sell securities, to select a project or make any kind of business transactions; (4) do not represent an assessment of the issuer's economic performance, financial obligations nor of its creditworthiness; and/or (5) have not and cannot be incorporated into any offering disclosure.

These are based on information made available by the issuer and therefore are not warranted as to their merchantability, completeness, accuracy, up-to-dateness or fitness for a particular purpose. The information and data are provided "as is" and reflect Sustainalytics' opinion at the date of their elaboration and publication. Sustainalytics accepts no liability for damage arising from the use of the information, data or opinions contained herein, in any manner whatsoever, except where explicitly required by law. Any reference to third party names or Third Party Data is for appropriate acknowledgement of their ownership and does not constitute a sponsorship or endorsement by such owner. A list of our third-party data providers and their respective terms of use is available on our website. For more information, visit <http://www.sustainalytics.com/legal-disclaimers>.

The issuer is fully responsible for certifying and ensuring the compliance with its commitments, for their implementation and monitoring.

In case of discrepancies between the English language and translated versions, the English language version shall prevail.

## About Sustainalytics, a Morningstar Company

Sustainalytics, a Morningstar Company, is a leading ESG research, ratings and data firm that supports investors around the world with the development and implementation of responsible investment strategies. For more than 30 years, the firm has been at the forefront of developing high-quality, innovative solutions to meet the evolving needs of global investors. Today, Sustainalytics works with hundreds of the world's leading asset managers and pension funds who incorporate ESG and corporate governance information and assessments into their investment processes. Sustainalytics also works with hundreds of companies and their financial intermediaries to help them consider sustainability in policies, practices and capital projects. With 17 offices globally, Sustainalytics has more than 1500 staff members, including more than 500 analysts with varied multidisciplinary expertise across more than 40 industry groups.

For more information, visit [www.sustainalytics.com](http://www.sustainalytics.com)

Or contact us [contact@sustainalytics.com](mailto:contact@sustainalytics.com)

