

Independent Limited Verification Statement

to the Management of Emirates Global Aluminium (EGA) PJSC – Jabel Ali Smelter

Emirates Global Aluminium PJSC, PO BOX 109111, Abu Dhabi, UAE (“EGA” or “Company”) commissioned DNV AS – Abu Dhabi Branch. (“DNV”, “us” or “we”) to conduct a limited level of verification of its Greenhouse Gas (“GHG”) emission data (scopes 1, 2, and 3) for the period 1st January 2023 to 31st December 2023 (Year 2023).



Our Conclusion: Based on our verification procedures and agreed-upon scope of work, nothing has come to our attention to suggest that the GHG emissions in the table below are not materially correct or a fair representation of the Scope 1, Scope 2, and Scope 3 GHG emissions of EGA’s GHG Inventory calculated in line with the GHG Protocol, Aluminium Sector Greenhouse Gas Protocol and IAI Scope 3 Calculation Tool Guidance covering operations for the year 2023.

GHG Sources	Verified GHG emissions for the year 2023 (tCO ₂ e)	Post I-REC allocation GHG emissions for the year 2023 (tCO ₂ e) ¹	Verified product GHG Emission Intensity for the year 2023 (tCO ₂ e/t Al) ²
Scope 1	9,272,040	9,272,040	8.038
Scope 2	5 ³	-	-
Scope 3	6,091,949	6,091,949	5.394
Total GHG Emissions	15,363,994	15,363,989	13.432

Scope of Work and Boundary

The scope of work as agreed with the Company includes verification of its GHG Inventory as follows:

- **Direct GHG emissions (Scope 1):** Covering the stationary combustion in Power Plants, Cast House, Carbon Plants, and mobile combustion from vehicles and equipment owned and/or operated by EGA, and fugitive emissions from refrigerant consumption. This also includes CO₂ emissions from the Electrolysis process, PFC emissions, emissions from pitch volatile matter oxidation, bake furnace packing material, and consumption of soda ash in the aluminium production process.
- **Indirect GHG emissions (Scope 2):** Covering the GHG emissions on account of electricity consumption. However, EGA has offset its scope 2 emissions for the reporting period by redemption of equivalent I-RECs.
- **Indirect GHG emissions (Scope 3):** Covering the GHG emissions on account of Purchased Goods and Services (Category 1), Fuel and energy-related activities (Category 3), Upstream transportation and distribution (Category 4), Downstream transportation and distribution (Category 9), and Processing of Sold Products (Category 10)

Verification was carried out at the EGA’s facility in Dubai (Jebel Ali Smelter) as part of the process of reviewing the Company’s internal protocols, processes, and controls related to the collection and collation of its GHG emissions assertions.

The boundary for the assessment covers the operational unit over which EGA has operational control. Accordingly, the Jebel Ali smelter in Dubai comprises the boundary of this assessment.

Basis of our conclusion

DNV planned and performed the verification assessment to obtain the necessary evidence to provide a limited level of assurance, adopting a risk-based approach in

Our competence, and Independence

DNV applies its own management standards and compliance policies for quality control, which are 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 verification engagement and maintains independence where required by relevant ethical requirements as detailed in DNV VeriSustain™, version 6.0.

This engagement work was carried out by an independent team of sustainability and GHG assurance professionals. DNV was not involved in the preparation of any statements or data except for this Assurance Statement. DNV maintains complete impartiality toward EGA’s internal stakeholders interviewed during the assurance process. DNV did not provide any services to EGA or its subsidiaries in the scope of assurance from 1st January 2023 to 31st December 2023 that could compromise the independence or impartiality of our work.

¹ EGA has offset the emissions for the total electricity import from the grid for the reporting period 2023 by redemption of I-RECs at the JA and AT sites and hence conservative. The details of the purchased I-RECs are included in Annexure I.

² The product GHG emission intensity is calculated based on verified data of Hot Metal Production. Also, the emissions associated with the electricity sold to customers, electricity exported to the grid and electricity supplied to residential area is excluded from product emission intensity calculations.

³ EGA exports electricity to the grid and, imports from the grid. As per agreement with the grid, the exports should match the imports at end of financial year. Accordingly, Scope 2 emissions are calculated based on net electricity import from grid as the emission for the electricity (generated and) exported to the grid by EGA are accounted in scope 1 emissions. The latest available emission factors of 2022 from DEWA is applied to derive scope 2 emissions. This method of calculation is a conservative approach.

selecting samples to assess the robustness of the underlying data management system, information flow, controls, quality verification, and check procedures. DNV carried out the following activities:

- **Desk review** of the Scope 1, 2, and 3 emissions for the period from 1st January 2023 to 31st December 2023.
- **Understanding the GHG management procedures**, including formats, assumptions, emission factors, and calculation methodologies, as well as the Company's GHG data management processes used to generate, aggregate, and report the GHG data, assessing completeness, accuracy, and reliability.
- **Site verifications** with data owners and management teams across EGA's facility to review procedures for measuring, validating, and verifying the identified activities and emission sources, and related evidence maintained by the management teams.
- **Interactions with key managers and data owners** to review data consolidation systems related to the GHG inventory, including reviews of emission factors and assumptions used in the calculation methodology.
- **Evaluation of GHG emissions data** using the reliability principle in conjunction with EGA's methodologies (which are based on GHG Protocol, IAI Guidelines for process and scope 3 emissions) on data analysis, aggregation, measurement, and reporting.
- **Verification of the calibration status** of equipment being used to monitor and generate activity data on a sample basis.

Reporting Criteria and Verification Standards

EGA has prepared its GHG data in reference to the requirements of the below.

- ✓ GHG Protocol: A Corporate Accounting and Reporting Standard, 2015,
- ✓ The Aluminium Sector Greenhouse Gas Protocol, October 2006 and
- ✓ IAI Scope 3 Calculation Tool Guidance 2022,


DNV has carried out this customized engagement in accordance with the verification principles and requirements as per ISO 14064-3:2019 and relevant sections of DNV VeriSustain™, version 6.0. This verification provides a limited level of assurance on EGA's GHG performance data based on the principles of Relevance, Completeness, Consistency, Transparency, and Accuracy applying a ±5% materiality threshold for errors and omissions.

Responsibility of the Company

The Company is responsible for the collection, analysis, aggregation, and presentation of data and information related to its GHG assertions, using its "Basis of Reporting" of GHG emissions, and adopting the 'operational control' model as a performance data consolidation approach defined in frameworks and standards mentioned above in reporting criteria.

DNV's Responsibility

Our responsibility for performing this work is to the management of EGA only and in accordance with the scope of work agreed with the Company. The verification engagement assumes that the data and information provided to us are complete, sufficient, and true. DNV disclaims any liability or co-responsibility for any decision a person or entity would make based on this verification statement. The verification was carried out from June 2024 to July 2024 by a team of qualified GHG assessors.

DNV AS - Abu Dhabi Branch		
 Digitally signed by Bankar, Vikas Date: 2024.08.08 11:31:50 +04'00'	Kakaraparthi Venkata Raman Digitally signed by Kakaraparthi Venkata Raman Date: 2024.08.08 15:31:50 +05'30'	Lele, Sandeep Digitally signed by Lele, Sandeep Date: 2024.08.08 18:59:48 +04'00'
Vikas Bankar Lead Verifier	Kakaraparthi Venkata Raman Technical Reviewer	Sandeep Lele Approver
Sauvik Banerjee - Verifier		

August 08, 2024

Inherent Limitations

DNV's assurance engagements assume that the data and information provided by EGA to us as part of our review have been provided in good faith, is true, complete, sufficient, and authentic, and is free from material misstatements. The engagement excludes the sustainability management, performance, and reporting practices of the Company's suppliers, contractors, and any third parties mentioned in the Report. We did not review financial disclosures and data as they are not within the Scope of our assurance engagement. No external stakeholders were interviewed as part of this verification engagement.

During the verification process, DNV did not come across any significant limitations to the Scope of the agreed engagement.

Some data inaccuracies identified during the verification process were found to be attributable to transcription, interpretation, and aggregation errors and the errors have been verified to be corrected.

Purpose and Restriction on Distribution and Use

This verification statement, including our conclusion has been prepared solely for the exclusive use and benefit of management of the company and solely for the purpose for which it is provided. To the fullest extent permitted by law, DNV does not assume responsibility to anyone other than company for DNV's work or this verification statement. The use of this verification statement shall be governed by the terms and conditions of the contract between DNV and the EGA and DNV does not accept any liability if this verification statement is used for an alternative purpose from which is intended, not to any third party in respect of this verification statement. No part of this assurance statement shall be reproduced, distributed or communicated to a third party without prior written consent.

Annexure I - Details of purchased International Renewable Energy Certificates (I-RECs)

Month	RE Power Generation Plant	Country of Origin	Energy Source	Redeemed Certificates	From Certificate ID	To Certificate ID
Jan-23	Sweihan PV Plant	UAE	Solar	190,367.000000	0000-0001-1424-7475.000000	0000-0001-1443-7842.599999
Feb-23				170,374.876600	0000-0001-1443-7842.600000	0000-0001-1460-8217.476599
Mar-23				187,108.826200	0000-0001-1460-8217.476600	0000-0001-1468-8263.999999
					0000-0002-1237-5552.000000	0000-0002-1248-2614.302799
Apr-23				203,278.013000	0000-0002-3460-1309	0000-0002-3464-5925
					0000-0002-1248-2614.302800	0000-0002-1264-1275.315799
May-23				91,621.835800	0000-0002-1264-1275.315800	0000-0002-1273-2897.151599
Jun-23				4,985.185100	0000-0002-1273-2897.151600	0000-0002-1273-7882.336699
Jul-23				3,620.596500	0000-0002-1299-0090.000000	0000-0002-1299-3710.596499
Aug-23				2,264.525600	0000-0002-1273-7882.336700	0000-0002-1274-0089.999999
					0000-0002-1299-3710.596500	0000-0002-1299-3767.458799
Sep-23				758.449500	0000-0002-1299-3767.458800	0000-0002-1299-4525.908299
Oct-23	2,508.451500	0000-0002-1299-4525.908300	0000-0002-1299-7034.359799			
Nov-23	157,011.559400	0000-0002-1299-7034.359800	0000-0002-1314-7089.999999			
		0000-0217-1024-6850.000000	0000-0217-1025-3805.919199			
Dec-23	261,839.830800	0000-0217-1025-3805.919200	0000-0217-1045-9849.999999			
		0000-0217-0889-4050.000000	0000-0217-0894-9845.749999			
Total				1,275,739.750000		

Note: The above I-REC redemptions apply to both the JA and AT sites. Consequently, the certificate details mentioned are relevant for both locations.

Independent Limited Verification Statement

to the Management of Emirates Global Aluminium (EGA) PJSC – Al Taweelah Smelter

Emirates Global Aluminium PJSC, PO BOX 109111, Abu Dhabi, UAE (“EGA” or “Company”) commissioned DNV AS – Abu Dhabi Branch. (“DNV”, “us” or “we”) to conduct a limited level of verification of its Greenhouse Gas (“GHG”) emission data (scopes 1, 2, and 3) for the period 1st January 2023 to 31st December 2023 (Year 2023).



Our Conclusion: Based on our verification procedures and agreed-upon scope of work, nothing has come to our attention to suggest that the GHG emissions in the table below are not materially correct or a fair representation of the Scope 1, Scope 2, and Scope 3 GHG emissions of EGA’s GHG Inventory calculated in line with the GHG Protocol, Aluminium Sector Greenhouse Gas Protocol and IAI Scope 3 Calculation Tool Guidance covering operations for the year 2023.

GHG Sources	Verified GHG emissions for the year 2023 (tCO ₂ e)	Post I-REC allocation GHG emissions for the year 2023 (tCO ₂ e) ¹	Verified product GHG emission intensity for the year 2023 (tCO ₂ e/t Al) ²
Scope 1	11,733,353	11,733,353	7.106
Scope 2	134,882 ³	-	-
Scope 3	4,303,292	4,303,292	2.815
Total GHG Emissions	16,171,527	16,036,645	9.921

Scope of Work and Boundary

The scope of work as agreed with the Company includes verification of its GHG Inventory as follows:

- **Direct GHG emissions (Scope 1):** Covering the stationary combustion in Power Plant, Cast House, Carbon Plants, and mobile combustion from vehicles and equipment owned and/or operated by EGA, and fugitive emissions from refrigerant consumption. This also includes CO₂ emissions from the Electrolysis process, PFC emissions, emissions from pitch volatile matter oxidation, bake furnace packing material, and consumption of soda ash in the aluminium production process.
- **Indirect GHG emissions (Scope 2):** Covering the GHG emissions on account of electricity consumption. However, EGA has offset its scope 2 emissions for the reporting period by redemption of equivalent I-RECs.
- **Indirect GHG emissions (Scope 3):** Covering the GHG emissions on account of Purchased Goods and Services (Category 1), Fuel and energy-related activities (Category 3), Upstream transportation and distribution (Category 4), Downstream transportation and distribution (Category 9), and Processing of Sold Products (Category 10)

Verification was carried out at the EGA’s facility in Abu Dhabi (Al Taweelah Smelter) as part of the process of reviewing the Company’s internal protocols, processes, and controls related to the collection and collation of its GHG emissions assertions.

The boundary for the assessment covers the operational unit over which EGA has operational control. Accordingly, the Al Taweelah smelter in Abu Dhabi comprises the boundary of this assessment.

Basis of our conclusion

DNV planned and performed the verification assessment to obtain the necessary evidence to provide a limited level of assurance, adopting a risk-based approach in

Our competence, and Independence

DNV applies its own management standards and compliance policies for quality control, which are 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 verification engagement and maintains independence where required by relevant ethical requirements as detailed in DNV VeriSustain™, version 6.0.

This engagement work was carried out by an independent team of sustainability and GHG assurance professionals. DNV was not involved in the preparation of any statements or data except for this Assurance Statement. DNV maintains complete impartiality toward EGA’s internal stakeholders interviewed during the assurance process. DNV did not provide any services to EGA or its subsidiaries in the scope of assurance from 1st January 2023 to 31st December 2023 that could compromise the independence or impartiality of our work.

¹ EGA has offset the emissions for the total electricity import from the grid for the reporting period 2023 by redemption of I-RECs at the JA and AT sites and hence conservative. The details of the purchased I-RECs are included in Annexure I.

² The product GHG emission intensity is calculated based on verified data of Hot Metal Production. Also, the emissions associated with the electricity exported to the grid and electricity & steam supplied to Al Taweelah Alumina refinery are excluded from product emission intensity calculations.

³ EGA exports electricity to the grid and, imports from the grid. As per agreement with the grid, the exports should match the imports at end of financial year. Accordingly, Scope 2 emissions are calculated based on net electricity import from grid as the emission for the electricity (generated and) exported to the grid by EGA are accounted in scope 1 emissions. The latest available emission factors of 2022 from EWEIC is applied to derive scope 2 emissions. This method of calculation is a conservative approach.

selecting samples to assess the robustness of the underlying data management system, information flow, controls, quality verification, and check procedures. DNV carried out the following activities:

- **Desk review** of the Scope 1, 2, and 3 emissions for the period 1st January 2023 to 31st December 2023.
- **Understanding the GHG management procedures**, including formats, assumptions, emission factors, and calculation methodologies, as well as the Company's GHG data management processes used to generate, aggregate, and report the GHG data, assessing completeness, accuracy, and reliability.
- **Site verifications** with data owners and management teams across EGA's facility to review procedures for measuring, validating, and verifying the identified activities and emission sources, and related evidence maintained by the management teams.
- **Interactions with key managers and data owners** to review data consolidation systems related to the GHG inventory, including reviews of emission factors and assumptions used in the calculation methodology.
- **Evaluation of GHG emissions data** using the reliability principle in conjunction with EGA's methodologies (which are based on GHG Protocol, IAI Guidelines for process and scope 3 emissions) on data analysis, aggregation, measurement, and reporting.
- **Verification of the calibration status** of equipment being used to monitor and generate activity data on a sample basis.

Reporting Criteria and Verification Standards

EGA has prepared its GHG data in reference to the requirements of the below.

- ✓ GHG Protocol: A Corporate Accounting and Reporting Standard, 2015,
- ✓ The Aluminium Sector Greenhouse Gas Protocol, October 2006 and
- ✓ IAI Scope 3 Calculation Tool Guidance 2022,


DNV has carried out this customized engagement in accordance with the verification principles and requirements as per ISO 14064-3:2019 and relevant sections of DNV VeriSustain™, version 6.0. This verification provides a limited level of assurance on EGA's GHG performance data based on the principles of Relevance, Completeness, Consistency, Transparency, and Accuracy applying a ±5% materiality threshold for errors and omissions.

Responsibility of the Company

The Company is responsible for the collection, analysis, aggregation, and presentation of data and information related to its GHG assertions, using its "Basis of Reporting" of GHG emissions, and adopting the 'operational control' model as a performance data consolidation approach defined in frameworks and standards mentioned above in reporting criteria.

DNV's Responsibility

Our responsibility for performing this work is to the management of EGA only and in accordance with the scope of work agreed with the Company. The verification engagement assumes that the data and information provided to us are complete, sufficient, and true. DNV disclaims any liability or co-responsibility for any decision a person or entity would make based on this verification statement. The verification was carried out from June 2024 to July 2024 by a team of qualified GHG assessors.

DNV AS - Abu Dhabi Branch		
 Digitally signed by Bankar, Vikas Date: 2024.08.21 17:01:57 +04'00'	Kakaraparathi Venkata Raman Digitally signed by Kakaraparathi Venkata Raman Date: 2024.08.22 11:48:40 +05'30'	Lele, Sandeep Digitally signed by Lele, Sandeep Date: 2024.08.22 15:10:50 +04'00'
Vikas Bankar Lead Verifier	Kakaraparathi Venkata Raman Technical Reviewer	Sandeep Lele Approver
Gourav Panwar and Mayank Kumar - Verifier		

August 21, 2024

Inherent Limitations

DNV's assurance engagements assume that the data and information provided by EGA to us as part of our review have been provided in good faith, is true, complete, sufficient, and authentic, and is free from material misstatements. The engagement excludes the sustainability management, performance, and reporting practices of the Company's suppliers, contractors, and any third parties mentioned in the Report. We did not review financial disclosures and data as they are not within the Scope of our assurance engagement. No external stakeholders were interviewed as part of this verification engagement.

During the verification process, DNV did not come across any significant limitations to the Scope of the agreed engagement.

Some data inaccuracies identified during the verification process were found to be attributable to transcription, interpretation, and aggregation errors and the errors have been corrected.

Purpose and Restriction on Distribution and Use

This verification statement, including our conclusion has been prepared solely for the exclusive use and benefit of management of the company and solely for the purpose for which it is provided. To the fullest extent permitted by law, DNV does not assume responsibility to anyone other than company for DNV's work or this verification statement. The use of this verification statement shall be governed by the terms and conditions of the contract between DNV and the EGA and DNV does not accept any liability if this verification statement is used for an alternative purpose from which is intended, not to any third party in respect of this verification statement. No part of this assurance statement shall be reproduced, distributed or communicated to a third party without prior written consent.

Annexure I - Details of purchased International Renewable Energy Certificates (I-RECs)

Month	RE Power Generation Plant	Country of Origin	Energy Source	Redeemed Certificates	From Certificate ID	To Certificate ID
Jan-23	Sweihan PV Plant	UAE	Solar	190,367.600000	0000-0001-1424-7475.000000	0000-0001-1443-7842.599999
Feb-23				170,374.876600	0000-0001-1443-7842.600000	0000-0001-1460-8217.476599
Mar-23				187,108.826200	0000-0001-1460-8217.476600	0000-0001-1468-8263.999999
					0000-0002-1237-5552.000000	0000-0002-1248-2614.302799
Apr-23				203,278.013000	0000-0002-3460-1309	0000-0002-3464-5925
					0000-0002-1248-2614.302800	0000-0002-1264-1275.315799
May-23				91,621.835800	0000-0002-1264-1275.315800	0000-0002-1273-2897.151599
Jun-23				4,985.185100	0000-0002-1273-2897.151600	0000-0002-1273-7882.336699
Jul-23				3,620.596500	0000-0002-1299-0090.000000	0000-0002-1299-3710.596499
Aug-23				2,264.525600	0000-0002-1273-7882.336700	0000-0002-1274-0089.999999
					0000-0002-1299-3710.596500	0000-0002-1299-3767.458799
Sep-23				758.449500	0000-0002-1299-3767.458800	0000-0002-1299-4525.908299
Oct-23	2,508.451500	0000-0002-1299-4525.908300	0000-0002-1299-7034.359799			
Nov-23	157,011.559400	0000-0002-1299-7034.359800	0000-0002-1314-7089.999999			
		0000-0217-1024-6850.000000	0000-0217-1025-3805.919199			
Dec-23	261,839.830800	0000-0217-1025-3805.919200	0000-0217-1045-9849.999999			
		0000-0217-0889-4050.000000	0000-0217-0894-9845.749999			
Total			1,275,739.750000			

Note: The above I-REC redemptions apply to both the JA and AT sites. Consequently, the certificate details mentioned are relevant for both locations.

Independent Limited Verification Statement

to the Management of Emirates Global Aluminium (EGA) PJSC – Jebel Ali and Al Taweelah Smelters

Emirates Global Aluminium PJSC, PO BOX 109111, Abu Dhabi, UAE (“EGA” or “Company”) commissioned DNV AS – Abu Dhabi Branch. (“DNV”, “us” or “we”) to conduct a limited level of verification of its Greenhouse Gas (“GHG”) emission data (Scopes 1, 2, and 3) for the period 1st January 2023 to 31st December 2023 (Year 2023).



Our Conclusion: Based on our verification procedures and agreed-upon scope of work, nothing has come to our attention to suggest that the GHG emissions in the table below are not materially correct or a fair representation of the Scope 1, Scope 2, and Scope 3 GHG emissions of EGA’s GHG Inventory calculated in line with the GHG Protocol, Aluminium Sector Greenhouse Gas Protocol and IAI Scope 3 Calculation Tool Guidance covering operations for the year 2023.

GHG Sources	Verified GHG emissions for the year 2023 (tCO ₂ e)	Post I-REC allocation GHG emissions for the year 2023 (tCO ₂ e) ¹	Verified product GHG emission intensity for the year 2023 (tCO ₂ e/t Al) ²
Scope 1	21,005,393	21,005,393	7.502
Scope 2	134,887 ³	-	-
Scope 3	10,395,241	10,395,241	3.911
Total GHG Emissions	31,535,521	31,400,634	11.413

Scope of Work and Boundary

The scope of work as agreed with the Company includes verification of its GHG Inventory as follows:

- **Direct GHG emissions (Scope 1):** Covering the stationary combustion in Power Plant, Cast House, Carbon Plants, and mobile combustion from vehicles and equipment owned and/or operated by EGA, and fugitive emissions from refrigerant consumption. This also includes CO₂ emissions from the Electrolysis process, PFC emissions, emissions from pitch volatile matter oxidation, bake furnace packing material, and consumption of soda ash in the aluminium production process.
- **Indirect GHG emissions (Scope 2):** Covering the GHG emissions on account of electricity consumption. However, EGA has offset its scope 2 emissions for the reporting period by redemption of equivalent I-RECs.
- **Indirect GHG emissions (Scope 3):** Covering the GHG emissions on account of Purchased Goods and Services (Category 1), Fuel and energy-related activities (Category 3), Upstream transportation and distribution (Category 4), Downstream transportation and distribution (Category 9), and Processing of Sold Products (Category 10)

Verification was carried out at the EGA’s facilities in UAE (AT and JA smelters) as part of the process of reviewing the Company’s internal protocols, processes, and controls related to the collection and collation of its GHG emissions assertions.

The boundary for the assessment covers the operational units over which EGA has operational control. Accordingly, the Jebel Ali and Al Taweelah smelters in Dubai and Abu Dhabi respectively comprise the boundary of this assessment.

Basis of our conclusion

DNV planned and performed the verification assessment to obtain the necessary evidence to provide a limited level of assurance, adopting a risk-based approach in

Our competence, and Independence

DNV applies its own management standards and compliance policies for quality control, which are 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 verification engagement and maintains independence where required by relevant ethical requirements as detailed in DNV VeriSustain™, version 6.0.

This engagement work was carried out by an independent team of sustainability and GHG assurance professionals. DNV was not involved in the preparation of any statements or data except for this Assurance Statement. DNV maintains complete impartiality toward EGA’s internal stakeholders interviewed during the assurance process. DNV did not provide any services to EGA or its subsidiaries in the scope of assurance from 1st January 2023 to 31st December 2023 that could compromise the independence or impartiality of our work.

¹ EGA has offset the emissions for the total electricity import from the grid for the reporting period 2023 by redemption of I-RECs at the JA and AT sites and hence conservative. The details of the purchased I-RECs are included in Annexure I.

² The product GHG emission intensity is calculated based on verified data of Hot Metal Production. Also, the emissions associated with the electricity exported to grid, electricity sold to customers (JA site), electricity supplied to residential area (JA site) and electricity & steam supplied Al Taweelah Alumina refinery (AT site) are excluded in product emission intensity calculations.

³ EGA exports electricity to the grid and, imports from the grid. As per agreement with the grid, the exports should match the imports at end of financial year. Accordingly, Scope 2 emissions are calculated based on net electricity import from grid as the emission for the electricity (generated and) exported to the grid by EGA are accounted in scope 1 emissions. The latest available emission factors of 2022 from EWEAC and DEWA are applied to derive scope 2 emissions. This method of calculation is a conservative approach.

selecting samples to assess the robustness of the underlying data management system, information flow, controls, quality verification, and check procedures. DNV carried out the following activities:

- **Desk review** of the Scopes 1, 2, and 3 emissions for the period from 1st January 2023 to 31st December 2023.
- **Understanding the GHG management procedures**, including formats, assumptions, emission factors, and calculation methodologies, as well as the Company's GHG data management processes used to generate, aggregate, and report the GHG data, assessing completeness, accuracy, and reliability.
- **Site verifications** with data owners and management teams across EGA's facility to review procedures for measuring, validating, and verifying the identified activities and emission sources, and related evidence maintained by the management teams.
- **Interactions with key managers and data owners** to review data consolidation systems related to the GHG inventory, including reviews of emission factors and assumptions used in the calculation methodology.
- **Evaluation of GHG emissions data** using the reliability principle in conjunction with EGA's methodologies (which are based on GHG Protocol, IAI Guidelines for process and scope 3 emissions) on data analysis, aggregation, measurement, and reporting.
- **Verification of the calibration status** of equipment being used to monitor and generate activity data on a sample basis.

Reporting Criteria and Verification Standards

EGA has prepared its GHG data in reference to the requirements below.

- ✓ GHG Protocol: A Corporate Accounting and Reporting Standard, 2015,
- ✓ The Aluminium Sector Greenhouse Gas Protocol, October 2006 and
- ✓ IAI Scope 3 Calculation Tool Guidance 2022,


DNV has carried out this customized engagement in accordance with the verification principles and requirements as per ISO 14064-3:2019 and relevant sections of DNV VeriSustain™, version 6.0. This verification provides a limited level of assurance on EGA's GHG performance data based on the principles of Relevance, Completeness, Consistency, Transparency, and Accuracy applying a ±5% materiality threshold for errors and omissions.

Responsibility of the Company

The Company is responsible for the collection, analysis, aggregation, and presentation of data and information related to its GHG assertions, using its "Basis of Reporting" of GHG emissions, and adopting the 'operational control' model as a performance data consolidation approach defined in frameworks and standards mentioned above in reporting criteria.

DNV's Responsibility

Our responsibility for performing this work is to the management of EGA only and in accordance with the scope of work agreed with the Company. The verification engagement assumes that the data and information provided to us are complete, sufficient, and true. DNV disclaims any liability or co-responsibility for any decision a person or entity would make based on this verification statement. The verification was carried out from June 2024 to July 2024 by a team of qualified GHG assessors.

DNV AS - Abu Dhabi Branch		
 Digitally signed by Bankar, Vikas Date: 2024.08.21 17:02:44 +04'00'	Kakaraparthi Venkata Raman Digitally signed by Kakaraparthi Venkata Raman Date: 2024.08.22 11:52:54 +05'30'	Lele, Sandeep Digitally signed by Lele, Sandeep Date: 2024.08.22 15:13:15 +04'00'
Vikas Bankar Lead Verifier	Kakaraparthi Venkata Raman Technical Reviewer	Sandeep Lele Approver
Sauvik Banerjee, Gourav Panwar, and Mayank Kumar - Verifier		

August 21, 2024

Inherent Limitations

DNV's assurance engagements assume that the data and information provided by EGA to us as part of our review have been provided in good faith, is true, complete, sufficient, and authentic, and is free from material misstatements. The engagement excludes the sustainability management, performance, and reporting practices of the Company's suppliers, contractors, and any third parties mentioned in the Report. We did not review financial disclosures and data as they are not within the Scope of our assurance engagement. No external stakeholders were interviewed as part of this verification engagement.

During the verification process, DNV did not come across any significant limitations to the Scope of the agreed engagement.

Some data inaccuracies identified during the verification process were found to be attributable to transcription, interpretation, and aggregation errors and the errors have been corrected.

Purpose and Restriction on Distribution and Use

This verification statement, including our conclusion has been prepared solely for the exclusive use and benefit of management of the company and solely for the purpose for which it is provided. To the fullest extent permitted by law, DNV does not assume responsibility to anyone other than company for DNV's work or this verification statement. The use of this verification statement shall be governed by the terms and conditions of the contract between DNV and the EGA and DNV does not accept any liability if this verification statement is used for an alternative purpose from which is intended, not to any third party in respect of this verification statement. No part of this assurance statement shall be reproduced, distributed or communicated to a third part without prior written consent.

Annexure I - Details of purchased International Renewable Energy Certificates (I-RECs)

Month	RE Power Generation Plant	Country of Origin	Energy Source	Redeemed Certificates	From Certificate ID	To Certificate ID
Jan-23	Sweihan PV Plant	UAE	Solar	190,367.600000	0000-0001-1424-7475.000000	0000-0001-1443-7842.599999
Feb-23				170,374.876600	0000-0001-1443-7842.600000	0000-0001-1460-8217.476599
Mar-23				187,108.826200	0000-0001-1460-8217.476600	0000-0001-1468-8263.999999
					0000-0002-1237-5552.000000	0000-0002-1248-2614.302799
Apr-23				203,278.013000	0000-0002-3460-1309	0000-0002-3464-5925
					0000-0002-1248-2614.302800	0000-0002-1264-1275.315799
May-23				91,621.835800	0000-0002-1264-1275.315800	0000-0002-1273-2897.151599
Jun-23				4,985.185100	0000-0002-1273-2897.151600	0000-0002-1273-7882.336699
Jul-23				3,620.596500	0000-0002-1299-0090.000000	0000-0002-1299-3710.596499
Aug-23				2,264.525600	0000-0002-1273-7882.336700	0000-0002-1274-0089.999999
					0000-0002-1299-3710.596500	0000-0002-1299-3767.458799
Sep-23				758.449500	0000-0002-1299-3767.458800	0000-0002-1299-4525.908299
Oct-23	2,508.451500	0000-0002-1299-4525.908300	0000-0002-1299-7034.359799			
Nov-23	157,011.559400	0000-0002-1299-7034.359800	0000-0002-1314-7089.999999			
		0000-0217-1024-6850.000000	0000-0217-1025-3805.919199			
Dec-23	261,839.830800	0000-0217-1025-3805.919200	0000-0217-1045-9849.999999			
		0000-0217-0889-4050.000000	0000-0217-0894-9845.749999			
Total			1,275,739.750000			

Note: The above I-REC redemptions apply to both the JA and AT sites. Consequently, the certificate details mentioned are relevant for both locations.

Independent Limited Verification Statement

to the Management of Emirates Global Aluminium (EGA) PJSC – Al Taweelah Alumina Refinery

Emirates Global Aluminium PJSC, PO BOX 109111, Abu Dhabi, UAE (“EGA” or “Company”) commissioned DNV AS – Abu Dhabi Branch. (“DNV”, “us” or “we”) to conduct a limited level of verification of its Greenhouse Gas (‘GHG’) emission data (scopes 1, 2, and 3) for the period 1st January 2023 to 31st December 2023 (Year 2023).



Our Conclusion: Based on our verification procedures and agreed-upon scope of work, nothing has come to our attention to suggest that the GHG emissions in the table below are not materially correct or a fair representation of the Scope 1, Scope 2, and Scope 3 GHG emissions of EGA’s GHG Inventory calculated in line with the GHG Protocol, Aluminium Sector Greenhouse Gas Protocol and IAI Scope 3 Calculation Tool Guidance covering operations for the year 2023.

GHG Sources	Verified GHG emissions for the year 2023 (tCO ₂ e)	Verified product GHG emission intensity for the year 2023 (tCO ₂ e/t Alumina) ¹
Scope 1	407,209	0.165
Scope 2 ²	690,681	0.278
Scope 3	1,252,214	0.506
Total GHG Emissions	2,350,104	0.949

Scope of Work and Boundary

The scope of work as agreed with the Company includes verification of its GHG Inventory as follows:

- **Direct GHG emissions (Scope 1):** Covering the stationary combustion in Al Taweelah power plants equivalent to the electricity and steam consumption at the refinery, Calcination through the combustion of Natural Gas, and mobile combustion from owned vehicles and equipment, and fugitive emissions from refrigerant consumption.
- **Indirect GHG emissions (Scope 2):** The direct consumption of electricity from the grid does not apply to Al Taweelah Refinery, as electricity is sourced exclusively from Al Taweelah power plants. Therefore, equivalent emissions attributable to this consumption are accounted for within scope 1 emissions.
- **Indirect GHG emissions (Scope 3):** Covering the GHG emissions on account of Purchased Goods and Services (Category 1), Fuel and energy-related activities (Category 3), Upstream transportation and distribution (Category 4), Downstream transportation and distribution (Category 9), and Processing of Sold Products (Category 10)

Verification was carried out at the EGA’s facility in Abu Dhabi (Al Taweelah Alumina Refinery) as part of the process of reviewing the Company’s internal protocols, processes, and controls related to the collection and collation of its GHG emissions assertions.

The boundary for the assessment covers the operational unit over which EGA has operational control. Accordingly, the Al Taweelah Alumina Refinery in Abu Dhabi comprises the boundary of this assessment.

Basis of our conclusion

DNV planned and performed the verification assessment to obtain the necessary evidence to provide a limited level of assurance, adopting a risk-based approach in selecting samples to assess the robustness of the underlying data management system, information flow, controls, quality verification, and check procedures. DNV carried out the following activities:

¹ The product GHG emission intensity is calculated based on verified data of Alumina Production.
² There is no electricity import from grid; however, the electricity imported from AT smelter is reported as scope 2 emissions for ATA site.

Our competence, and Independence

DNV applies its own management standards and compliance policies for quality control, which are 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 verification engagement and maintains independence where required by relevant ethical requirements as detailed in DNV VeriSustain™, version 6.0.

This engagement work was carried out by an independent team of sustainability and GHG assurance professionals. DNV was not involved in the preparation of any statements or data except for this Assurance Statement. DNV maintains complete impartiality toward EGA’s internal stakeholders interviewed during the assurance process. DNV did not provide any services to EGA or its subsidiaries in the scope of assurance from 1st January 2023 to 31st December 2023 that could compromise the independence or impartiality of our work.

- **Desk review** of the Scopes 1, 2, and 3 emissions for the period from 1st January 2023 to 31st December 2023.
- **Understanding the GHG management procedures**, including formats, assumptions, emission factors, and calculation methodologies, as well as the Company's GHG data management processes used to generate, aggregate, and report the GHG data, assessing completeness, accuracy, and reliability.
- **Site verifications** with data owners and management teams across EGA's facility to review procedures for measuring, validating, and verifying the identified activities and emission sources, and related evidence maintained by the management teams.
- **Interactions with key managers and data owners** to review data consolidation systems related to the GHG inventory, including reviews of emission factors and assumptions used in the calculation methodology.
- **Evaluation of GHG emissions data** using the reliability principle in conjunction with EGA's methodologies (which are based on GHG Protocol, IAI Guidelines for process and scope 3 emissions) on data analysis, aggregation, measurement, and reporting.
- **Verification of the calibration status** of equipment being used to monitor and generate activity data on a sample basis.

Reporting Criteria and Verification Standards

EGA has prepared its GHG data in reference to the requirements of the below.

- ✓ GHG Protocol: A Corporate Accounting and Reporting Standard, 2015,
- ✓ The Aluminium Sector Greenhouse Gas Protocol, October 2006 and
- ✓ IAI Scope 3 Calculation Tool Guidance 2022,


DNV has carried out this customized engagement in accordance with the verification principles and requirements as per ISO 14064-3:2019 and relevant sections of DNV VeriSustain™, version 6.0. This verification provides a limited level of assurance on EGA's GHG performance data based on the principles of Relevance, Completeness, Consistency, Transparency, and Accuracy applying a ±5% materiality threshold for errors and omissions.

Responsibility of the Company

The Company is responsible for the collection, analysis, aggregation, and presentation of data and information related to its GHG assertions, using its "Basis of Reporting" of GHG emissions, and adopting the 'operational control' model as a performance data consolidation approach defined in frameworks and standards mentioned above in reporting criteria.

DNV's Responsibility

Our responsibility for performing this work is to the management of EGA only and in accordance with the scope of work agreed with the Company. The verification engagement assumes that the data and information provided to us are complete, sufficient, and true. DNV disclaims any liability or co-responsibility for any decision a person or entity would make based on this verification statement. The verification was carried out from June 2024 to July 2024 by a team of qualified GHG assessors.

DNV AS - Abu Dhabi Branch		
 Digitally signed by Bankar, Vikas Date: 2024.08.22 11:10:49 +04'00'	Kakaraparthi Venkata Raman Digitally signed by Kakaraparthi Venkata Raman Date: 2024.08.22 13:59:55 +05'30'	Lele, Sandeep Digitally signed by Lele, Sandeep Date: 2024.08.22 15:14:08 +04'00'
Vikas Bankar Lead Verifier	Kakaraparthi Venkata Raman Technical Reviewer	Sandeep Lele Approver
Gourav Panwar and Mayank Kumar - Verifier		

August 22, 2024

Inherent Limitations

DNV's assurance engagements assume that the data and information provided by EGA to us as part of our review have been provided in good faith, is true, complete, sufficient, and authentic, and is free from material misstatements. The engagement excludes the sustainability management, performance, and reporting practices of the Company's suppliers, contractors, and any third parties mentioned in the Report. We did not review financial disclosures and data as they are not within the Scope of our assurance engagement. No external stakeholders were interviewed as part of this verification engagement.

During the verification process, DNV did not come across any significant limitations to the Scope of the agreed engagement.

Some data inaccuracies identified during the verification process were found to be attributable to transcription, interpretation, and aggregation errors and the errors have been corrected.

Purpose and Restriction on Distribution and Use

This verification statement, including our conclusion has been prepared solely for the exclusive use and benefit of management of the company and solely for the purpose for which it is provided. To the fullest extent permitted by law, DNV does not assume responsibility to anyone other than company for DNV's work or this verification statement. The use of this verification statement shall be governed by the terms and conditions of the contract between DNV and the EGA and DNV does not accept any liability if this verification statement is used for an alternative purpose from which is intended, not to any third party in respect of this verification statement. No part of this assurance statement shall be reproduced, distributed or communicated to a third part without prior written consent.

Independent Limited Verification Statement

to the Management of Emirates Global Aluminium (EGA) PJSC – Guinea Alumina Corporation (GAC)

Emirates Global Aluminium PJSC, PO BOX 109111, Abu Dhabi, UAE (“EGA” or “Company”) commissioned DNV AS – Abu Dhabi Branch. (“DNV”, “us” or “we”) to conduct a limited level of verification of its Greenhouse Gas (‘GHG’) emission data (scopes 1 2, and 3) for the period 1st January 2023 to 31st December 2023 (Year 2023).



Our Conclusion: Based on our verification procedures and agreed-upon scope of work, nothing has come to our attention to suggest that the GHG emissions in the table below are not materially correct or a fair representation of the Scope 1, Scope 2, and Scope 3 GHG emissions of EGA’s GHG Inventory calculated in line with the GHG Protocol, Aluminium Sector Greenhouse Gas Protocol and IAI Scope 3 Calculation Tool Guidance covering operations for the year 2023.

GHG Sources	Verified GHG emissions for the year 2023 (tCO ₂ e)	Verified product GHG emission intensity for the year 2023 (tCO ₂ e/t Bauxite) ¹
Scope 1	78,518	0.006
Scope 2 ²	-	-
Scope 3	10,362,138	0.733
Total GHG Emissions	10,440,656	0.739

Scope of Work and Boundary

The scope of work as agreed with the Company includes verification of its GHG Inventory as follows:

- **Direct GHG emissions (Scope 1):** Covering the stationary combustion in diesel generators for power generation, and mobile combustion from vehicles and equipment which are owned and/or operated by GAC.
- **Indirect GHG emissions (Scope 2):** Not applicable as there is no purchased energy involved for GAC.
- **Indirect GHG emissions (Scope 3):** Covering the GHG emissions on account of Purchased Goods and Services (Category 1), Fuel and energy-related activities (Category 3), Upstream transportation and distribution (Category 4), Downstream transportation and distribution (Category 9), and Processing of Sold Products (Category 10)

Verification (remote) was carried out at the EGA’s facility in the Republic of Guinea (GAC Bauxite mining facility) as part of the process of reviewing the Company’s internal protocols, processes, and controls related to the collection and collation of its GHG emissions assertions.

The boundary for the assessment covers the operational unit over which EGA has operational control. Accordingly, the GAC Bauxite mining facility in the Republic of Guinea comprises the boundary of this assessment.

Basis of our conclusion

DNV planned and performed the verification assessment to obtain the necessary evidence to provide a limited level of assurance, adopting a risk-based approach in selecting samples to assess the robustness of the underlying data management system, information flow, controls, quality verification, and check procedures. DNV carried out the following activities:

Our competence, and Independence

DNV applies its own management standards and compliance policies for quality control, which are 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 verification engagement and maintains independence where required by relevant ethical requirements as detailed in DNV VeriSustain™, version 6.0.

This engagement work was carried out by an independent team of sustainability and GHG assurance professionals. DNV was not involved in the preparation of any statements or data except for this Assurance Statement. DNV maintains complete impartiality toward EGA’s internal stakeholders interviewed during the assurance process. DNV did not provide any services to EGA or its subsidiaries in the scope of assurance from 1st January 2023 to 31st December 2023 that could compromise the independence or impartiality of our work.

¹ The product GHG emission intensity is calculated based on verified data of bauxite (ore) exported quantity

² There is no electricity import from grid at bauxite mining facility in Republic of Guinea; hence scope 2 is not applicable for GAC site.

- **Desk review** of the Scopes 1, 2, and 3 emissions for the period from 1st January 2023 to 31st December 2023.
- **Understanding the GHG management procedures**, including formats, assumptions, emission factors, and calculation methodologies, as well as the Company’s GHG data management processes used to generate, aggregate, and report the GHG data, assessing completeness, accuracy, and reliability.
- **Site verifications** with data owners and management teams across EGA’s facility to review procedures for measuring, validating, and verifying the identified activities and emission sources, and related evidence maintained by the management teams.
- **Interactions with key managers and data owners** to review data consolidation systems related to the GHG inventory, including reviews of emission factors and assumptions used in the calculation methodology.
- **Evaluation of GHG emissions data** using the reliability principle in conjunction with EGA’s methodologies (which are based on GHG Protocol, IAI Guidelines for process and scope 3 emissions) on data analysis, aggregation, measurement, and reporting.
- **Verification of the calibration status** of equipment being used to monitor and generate activity data on a sample basis.

Reporting Criteria and Verification Standards

EGA has prepared its GHG data in reference to the requirements of the below.

- ✓ GHG Protocol: A Corporate Accounting and Reporting Standard, 2015,
- ✓ The Aluminium Sector Greenhouse Gas Protocol, October 2006 and
- ✓ IAI Scope 3 Calculation Tool Guidance 2022,

DNV has carried out this customized engagement in accordance with the verification principles and requirements as per ISO 14064-3:2019 and relevant sections of DNV VeriSustain™, version 6.0. This verification provides a limited level of assurance on EGA’s GHG performance data based on the principles of Relevance, Completeness, Consistency, Transparency, and Accuracy applying a ±5% materiality threshold for errors and omissions.

Responsibility of the Company

The Company is responsible for the collection, analysis, aggregation, and presentation of data and information related to its GHG assertions, using its “Basis of Reporting” of GHG emissions, and adopting the ‘operational control’ model as a performance data consolidation approach defined in frameworks and standards mentioned above in reporting criteria.

DNV’s Responsibility

Our responsibility for performing this work is to the management of EGA only and in accordance with the scope of work agreed with the Company. The verification engagement assumes that the data and information provided to us are complete, sufficient, and true. DNV disclaims any liability or co-responsibility for any decision a person or entity would make based on this verification statement. The verification was carried out from June 2024 to July 2024 by a team of qualified GHG assessors.

DNV AS – Abu Dhabi Branch		
Vikas Bankar Lead Verifier	Kakaraparathi Venkata Raman Technical Reviewer	Sandeep Lele Approver
Sauvik Banerjee – Verifier		

August 08, 2024

Inherent Limitations

DNV’s assurance engagements assume that the data and information provided by EGA to us as part of our review have been provided in good faith, is true, complete, sufficient, and authentic, and is free from material misstatements. The engagement excludes the sustainability management, performance, and reporting practices of the Company’s suppliers, contractors, and any third parties mentioned in the Report. We did not review financial disclosures and data as they are not within the Scope of our assurance engagement. No external stakeholders were interviewed as part of this verification engagement.

During the verification process, DNV did not come across any significant limitations to the Scope of the agreed engagement.

Some data inaccuracies identified during the verification process were found to be attributable to transcription, interpretation, and aggregation errors and the errors have been corrected.

Purpose and Restriction on Distribution and Use

This verification statement, including our conclusion has been prepared solely for the exclusive use and benefit of management of the company and solely for the purpose for which it is provided. To the fullest extent permitted by law, DNV does not assume responsibility to anyone other than company for DNV’s work or this verification statement. The use of this verification statement shall be governed by the terms and conditions of the contract between DNV and the EGA and DNV does not accept any liability if this verification statement is used for an alternative purpose from which is intended, not to any third party in respect of this verification statement. No part of this assurance statement shall be reproduced, distributed or communicated to a third part without prior written consent.

Independent Limited Verification Statement

to the Management of Emirates Global Aluminium (EGA) PJSC

Emirates Global Aluminium PJSC, PO BOX 109111, Abu Dhabi, UAE (“EGA” or “Company”) has commissioned DNV AS - Abu Dhabi Branch. (“DNV”, “us” or “we”) to conduct a limited level of verification of its Greenhouse Gas (‘GHG’) emission data (Scope 1, 2, and 3) for the period 1st January 2023 to 31st December 2023 (Year 2023).



Our Conclusion: Based on our verification procedures and agreed-upon scope of work, nothing has come to our attention to suggest that the GHG emissions in the table below are not materially correct or a fair representation of the Scope 1, Scope 2, and Scope 3 GHG emissions of EGA’s GHG Inventory calculated in line with the GHG Protocol, Aluminium Sector Greenhouse Gas Protocol and IAI Scope 3 Calculation Tool Guidance covering operations for the year 2023.

GHG Sources	Verified GHG emissions for the year 2023 (tCO ₂ e)	Post I-REC allocation GHG emissions for the year 2023 (tCO ₂ e) ¹
Scope 1	21,491,120	21,491,120
Scope 2	134,887 ²	-
Scope 3	22,009,593	22,009,593
Total GHG Emissions	43,635,600	43,500,713

Scope of Work and Boundary

The scope of work as agreed with the Company includes verification of its GHG Inventory as follows:

- **Direct GHG emissions (Scope 1):** Covering the stationary combustion in Power Plants, Cast House, Carbon Plants, and Calcination through the combustion of Natural Gas, mobile combustion from vehicles and equipment owned and/or operated by EGA, and fugitive emissions from refrigerant consumption. This also includes CO₂ emissions from the Electrolysis process, PFC emissions, emissions from pitch volatile matter oxidation, bake furnace packing material, and consumption of soda ash in the aluminium production process.
- **Indirect GHG emissions (Scope 2):** Covering the GHG emissions on account of electricity consumption. However, EGA has offset its scope 2 emissions for the reporting period by redemption of equivalent I-RECs.
- **Indirect GHG emissions (Scope 3):** Covering the GHG emissions on account of Purchased Goods and Services (Category 1), Fuel and energy-related activities (Category 3), Upstream transportation and distribution (Category 4), Downstream transportation and distribution (Category 9), and Processing of Sold Products (Category 10)

Verification was carried out at the EGA’s facilities in Dubai, Abu Dhabi, and the Republic of Guinea (GAC Bauxite mining facility) as part of the process of reviewing the Company’s internal protocols, processes, and controls related to the collection and collation of its GHG emissions assertions.

The boundary for the assessment covers all the operational units over which EGA has operational control. Accordingly, the Jabel Ali and Al Taweelahsmelters, Al Taweelah Alumina Refinery in UAE, and GAC Bauxite mining facility in the Republic of Guinea comprise the boundary of this assessment.

Basis of our conclusion

DNV planned and performed the verification assessment to obtain the necessary evidence to provide a limited level of assurance, adopting a risk-based approach in

Our competence, and Independence

DNV applies its own management standards and compliance policies for quality control, which are 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 verification engagement and maintains independence where required by relevant ethical requirements as detailed in DNV VeriSustain™, version 6.0.

This engagement work was carried out by an independent team of sustainability and GHG assurance professionals. DNV was not involved in the preparation of any statements or data except for this Assurance Statement. DNV maintains complete impartiality toward EGA’s internal stakeholders interviewed during the assurance process. DNV did not provide any services to EGA or its subsidiaries in the scope of assurance from 1st January 2023 to 31st December 2023 that could compromise the independence or impartiality of our work.

¹ EGA has offset the emissions for the total electricity import from the grid for the reporting period 2023 by redemption of I-RECs at the JA and AT sites and hence conservative. The details of the purchased I-RECs are included in Annexure I.

² EGA exports electricity to the grid and, imports from the grid. As per agreement with the grid, the exports should match the imports at end of financial year. Accordingly, Scope 2 emissions are calculated based on net electricity import from grid as the emission for the electricity (generated and) exported to the grid by EGA are accounted in scope 1 emissions. The latest available emission factors of 2022 from EWE and DEWA are applied to derive scope 2 emissions. This method of calculation is a conservative approach.

selecting samples to assess the robustness of the underlying data management system, information flow, controls, quality verification, and check procedures. DNV carried out the following activities:

- **Desk review** of the Scope 1, 2, and 3 emissions for the period from 1st January 2023 to 31st December 2023.
- **Understanding the GHG management procedures**, including formats, assumptions, emission factors, and calculation methodologies, as well as the Company’s GHG data management processes used to generate, aggregate, and report the GHG data, assessing completeness, accuracy, and reliability.
- **Site verifications** with data owners and management teams across EGA’s facility to review procedures for measuring, validating, and verifying the identified activities and emission sources, and related evidence maintained by the management teams.
- **Interactions with key managers and data owners** to review data consolidation systems related to the GHG inventory, including reviews of emission factors and assumptions used in the calculation methodology.
- **Evaluation of GHG emissions data** using the reliability principle in conjunction with EGA’s methodologies (which are based on GHG Protocol, IAI Guidelines for process and scope 3 emissions) on data analysis, aggregation, measurement, and reporting.
- **Verification of the calibration status** of equipment being used to monitor and generate activity data on a sample basis.

Reporting Criteria and Verification Standards

EGA has prepared its GHG data in reference to the requirements of the below.

- ✓ GHG Protocol: A Corporate Accounting and Reporting Standard, 2015,
- ✓ The Aluminium Sector Greenhouse Gas Protocol, October 2006 and
- ✓ IAI Scope 3 Calculation Tool Guidance 2022,

DNV has carried out this customized engagement in accordance with the verification principles and requirements as per ISO 14064-3:2019 and relevant sections of DNV VeriSustain™, version 6.0. This verification provides a limited level of assurance on EGA’s GHG performance data based on the principles of Relevance, Completeness, Consistency, Transparency, and Accuracy applying a ±5% materiality threshold for errors and omissions.

Responsibility of the Company

The Company is responsible for the collection, analysis, aggregation, and presentation of data and information related to its GHG assertions, using its “Basis of Reporting” of GHG emissions, and adopting the ‘operational control’ model as a performance data consolidation approach defined in frameworks and standards mentioned above in reporting criteria.

DNV’s Responsibility

Our responsibility for performing this work is to the management of EGA only and in accordance with the scope of work agreed with the Company. The verification engagement assumes that the data and information provided to us are complete, sufficient, and true. DNV disclaims any liability or co-responsibility for any decision a person or entity would make based on this verification statement. The verification was carried out from June 2024 - July 2024 by a team of qualified GHG assessors.

DNV AS – Abu Dhabi Branch		
Vikas Bankar Lead Verifier	Kakaraparthi Venkata Raman Technical Reviewer	Sandeep Lele Approver
Gourav Panwar, Sauvik Banerjee, and Mayank Kumar – Verifier		

August 21, 2024

Inherent Limitations

DNV’s assurance engagements assume that the data and information provided by EGA to us as part of our review have been provided in good faith, is true, complete, sufficient, and authentic, and is free from material misstatements. The engagement excludes the sustainability management, performance, and reporting practices of the Company’s suppliers, contractors, and any third parties mentioned in the Report. We did not review financial disclosures and data as they are not within the Scope of our assurance engagement. No external stakeholders were interviewed as part of this verification engagement.

During the verification process, DNV did not come across any significant limitations to the Scope of the agreed engagement.

Some data inaccuracies identified during the verification process were found to be attributable to transcription, interpretation, and aggregation errors and the errors have been corrected.

Purpose and Restriction on Distribution and Use

This verification statement, including our conclusion has been prepared solely for the exclusive use and benefit of management of the company and solely for the purpose for which it is provided. To the fullest extent permitted by law, DNV does not assume responsibility to anyone other than company for DNV’s work or this verification statement. The use of this verification statement shall be governed by the terms and conditions of the contract between DNV and the EGA and DNV does not accept any liability if this verification statement is used for an alternative purpose from which is intended, not to any third party in respect of this verification statement. No part of this assurance statement shall be reproduced, distributed or communicated to a third part without prior written consent.

Annexure I - Details of purchased International Renewable Energy Certificates (I-RECs)

Month	RE Power Generation Plant	Country of Origin	Energy Source	Redeemed Certificates	From Certificate ID	To Certificate ID
Jan-23	Sweihan PV Plant	UAE	Solar	190,367.600000	0000-0001-1424-7475.000000	0000-0001-1443-7842.599999
Feb-23				170,374.876600	0000-0001-1443-7842.600000	0000-0001-1460-8217.476599
Mar-23				187,108.826200	0000-0001-1460-8217.476600	0000-0001-1468-8263.999999
					0000-0002-1237-5552.000000	0000-0002-1248-2614.302799
Apr-23				203,278.013000	0000-0002-3460-1309	0000-0002-3464-5925
					0000-0002-1248-2614.302800	0000-0002-1264-1275.315799
May-23				91,621.835800	0000-0002-1264-1275.315800	0000-0002-1273-2897.151599
Jun-23				4,985.185100	0000-0002-1273-2897.151600	0000-0002-1273-7882.336699
Jul-23				3,620.596500	0000-0002-1299-0090.000000	0000-0002-1299-3710.596499
Aug-23				2,264.525600	0000-0002-1273-7882.336700	0000-0002-1274-0089.999999
					0000-0002-1299-3710.596500	0000-0002-1299-3767.458799
Sep-23				758.449500	0000-0002-1299-3767.458800	0000-0002-1299-4525.908299
Oct-23	2,508.451500	0000-0002-1299-4525.908300	0000-0002-1299-7034.359799			
Nov-23	157,011.559400	0000-0002-1299-7034.359800	0000-0002-1314-7089.999999			
		0000-0217-1024-6850.000000	0000-0217-1025-3805.919199			
Dec-23	261,839.830800	0000-0217-1025-3805.919200	0000-0217-1045-9849.999999			
		0000-0217-0889-4050.000000	0000-0217-0894-9845.749999			
Total				1,275,739.750000		

Note: The above I-REC redemptions apply to both the JA and AT sites. Consequently, the certificate details mentioned are relevant for both locations.