

Sustainability at Emirates Global Aluminium: Safeguarding the Environment, Social Responsibility and Good Governance

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Abstract



Sustainability is one of the core values at Emirates Global Aluminium (EGA) with three pillars: safeguarding the environment, social responsibility and good governance.

To safeguard the environment, EGA is pursuing decarbonisation with the roadmap commitment to net zero greenhouse gas (GHG) emissions by 2050. Using solar power to generate electricity for the production of aluminium, CelestiAl, is an important step towards that goal. In 2021, EGA was the first smelter to produce solar aluminium commercially. Continuous reduction of energy and fresh water consumption, reduction of environment emissions and other wastes has qualified 100 % of EGA's smelting and casting operations to be certified by the ASI Performance Standard.

The top priority of social responsibility is health and safety of our people - employees and contractors. Every day, everybody has to come home safe. EGA management policies provide safe work environment through life saving rules incorporated in all safe operating procedures (SOPs), and through safety training of all employees and contractors. EGA's goal is not just zero harm, but to eliminate the risk of harm. Heat stress illnesses have been practically eliminated through dedicated special management. Another social responsibility is empowerment of women at work. In 2022 in UAE, 21% of supervisory and management roles were held by women across all our operations.

EGA's corporate governance practices have been designed to provide a foundation for value creation for all its stakeholders and to ensure sustainable and responsible long-term growth. The entire executive leadership plays an active role in EGA's sustainability agenda. Ethical practices are embedded throughout our business. EGA's Code of Ethics establishes and communicates the standards that guide our behaviour, and applies to everyone at EGA. The Code of Ethics is mandatory for all staff, including our Executive Committee and is delivered as part of EGA's induction process for new employees, and followed up with an annual adherence declaration for all staff. Responsible Sourcing Standards have been established to regulate supply chain providers to the same values as ours. Local procurement and support of local aluminium transformation companies are our priorities.

This paper describes EGA's sustainability program and achievements in detail.

Keywords: EGA's sustainability, Environment, Decarbonisation, Social responsibility, Governance.

1. Introduction

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs [1]. The goal of sustainability is to create and maintain conditions under which humans and nature can exist in productive harmony, that permit fulfilling the social, economic and other requirements of present and future generations [2].

Sustainability is one of the core values at Emirates Global Aluminium (EGA) with three pillars: safeguarding the environment, social responsibility and good governance. EGA has published annual sustainability reports since 2017, with the data going back to 2014, the year of EGA’s establishment through the merger of Dubai Aluminium and Emirates Aluminium [3-8]. This paper is largely based on these reports, but some environment data goes back to early EGA history to show that some EGA sustainability goals have been pursued since the very beginning of the company which grew from a modest beginning to a mega smelter [9].

1.1 Materiality Matrix

Sustainability covers a broad range of topics. Identifying what should be reported and to what extent is an important component of the sustainability reporting process, EGA uses the Global Reporting Initiative’s materiality (relevancy) principle whereby a broad range of internal and external stakeholders are consulted to help identify the most relevant sustainability topics for the company. Figure 1 gives the results in materiality matrix graph for 2021, ranking 19 sustainability topics classified by 192 internal EGA and external stakeholders. The materiality matrix identifies topics that had the most significant impacts and that also substantively influenced assessment and decision making. The scores of respondents for each of the 19 topics were averaged and plotted as a ‘materiality matrix’. Internal stakeholder results were plotted against the x-axis; external stakeholder results were plotted against the y-axis.



Figure 1. Materiality matrix for EGA sustainability topics in 2021.

5. Conclusions

EGA is actively pursuing its sustainability goals in its core values: safeguarding the environment, social responsibility and good governance. EGA focus on sustainability helps us to set new production performance records and hot metal production trend shown in Figure 17 is good illustration of this.

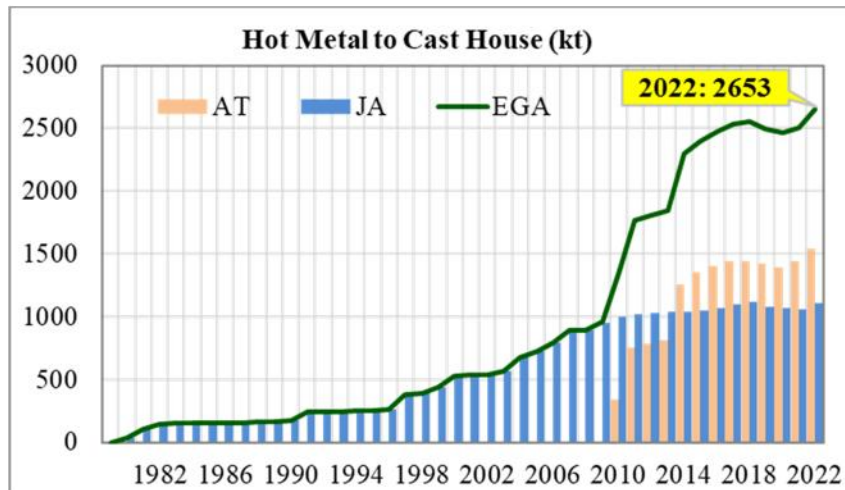


Figure 17. Annual production of aluminium reached record level in 2022.

To safeguard the environment, EGA has elaborated a decarbonisation roadmap commitment to net zero greenhouse gas (GHG) emissions by 2050. On the way to this goal, ASI certification in all spheres of activity is sought by 2030. The first priority on this path is decarbonization of electricity generation, turning from gas to solar and nuclear.

In social responsibility, the top priority is workplace health and safety, assured by management policies, life-saving rules, safe operating practices, and training. Community engagement benefits local socio-economic development. Diversity and inclusion give equal opportunities for well-being, and productive and innovative workplace.

EGA's corporate governance practices have been designed to provide a foundation for value creation for all its stakeholders and to ensure sustainable and responsible long-term growth. Ethical practices are embedded throughout our business. EGA's Code of Ethics establishes and communicates the standards that guide our behaviour.

6. References

1. Gro Harlem Brundtland, *Our Common Future, Report of the World Commission on Environment and Development*, Oslo, 20 March 1987, <https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf> (retrieved on 28 June 2023).
2. Environment Protection Agency (EPA), <https://www.epa.gov/sustainability/learn-about-sustainability#care> (retrieved on 28 June 2023).
3. EGA 2017 Sustainability Report, <https://www.ega.ae/en/sustainability/environment>.
4. EGA 2018 Sustainability Report, <https://www.ega.ae/en/sustainability/environment>.
5. EGA 2019 Sustainability Report, <https://www.ega.ae/en/sustainability/environment>.
6. EGA 2020 Sustainability Report, <https://www.ega.ae/en/sustainability/environment>.
7. EGA 2021 Sustainability Report, <https://www.ega.ae/en/sustainability/environment>.

8. EGA 2022 Sustainability Report (to be published)
9. Sergey Akhmetov, Abdalla Alzarooni and Nadia Ahli, EGA story from humble beginnings to a mega smelter, *Proceedings of the 40th International ICSOBA Conference*, Athens, 10-14 October 2022, *Travaux* 51, 53-71.
10. Aluminium Stewardship Initiative, <https://aluminium-stewardship.org/asi-standards/overview> (retrieved on 28 June 2023).
11. Michel Reverdy et al., EGA's progress in environment emissions reduction, *International Aluminium Journal*, 2020, Vol. 96, No. 1-2, 60-61.
12. International Aluminium Institute, <https://international-aluminium.org/statistics/perfluorocarbon-pfc-emissions/>, (retrieved on 29 June 2023).
13. <https://media.ega.ae/ega-welcomes-emirates-nuclear-energy-corporation-md--ceo-to-al-taweelah-site-to-discuss-uaes-clean-energy-future/>, EGA Media 24 February 2023 (retrieved on 29 June 2023).
14. David Wong et al., Latest progress in IPCC methodology for estimating the extent of PFC greenhouse gases co-evolved in the aluminium reduction cell and challenges in reducing these emissions, *Proceedings of the 37th International ICSOBA Conference and XXV Conference «Aluminium of Siberia»*, Krasnoyarsk, Russia, 16-20 September 2019, Paper AL03, *Travaux* 48, 735-758.
15. Ali Jassim, Sergey Akhmetov, Abdalla A. Alzarooni, Daniel Whitfield and Barry Welch, Understanding of co-evolution of PFC emissions in EGA smelter with opportunities and challenges to lower the emissions, *Light Metals* 2019, 829-836.
16. Lucky Zaman and Markus Gräfe, Mineralogical and compositional description of Al Taweelah Alumina refinery bauxite residue, *Proceedings of the 41st International ICSOBA Conference*, Dubai, 5-9 November 2023, *Travaux* 52, Paper BR01.
17. Chun Man Chow et al., Environmental Benefits of Using Spent Pot Lining (SPL) in Cement Production, *Proceedings of the 37th International ICSOBA Conference and XXV Conference «Aluminium of Siberia»*, Krasnoyarsk, Russia, 16 – 20 September, 2019, *Travaux* 48, 765-779.
18. Merfat Al Nuaimi, Budoor Al Marri and Mohamed Al Bishr, Beat the Heat! – EGA's heat stress prevention programme, *Proceedings of the 40th International ICSOBA Conference*, Athens, 10 - 14 October 2022, *TRAVAUX* 51, 1263-1271.