CleanCarbon
Manage your carbon footprint

CASE STUDY

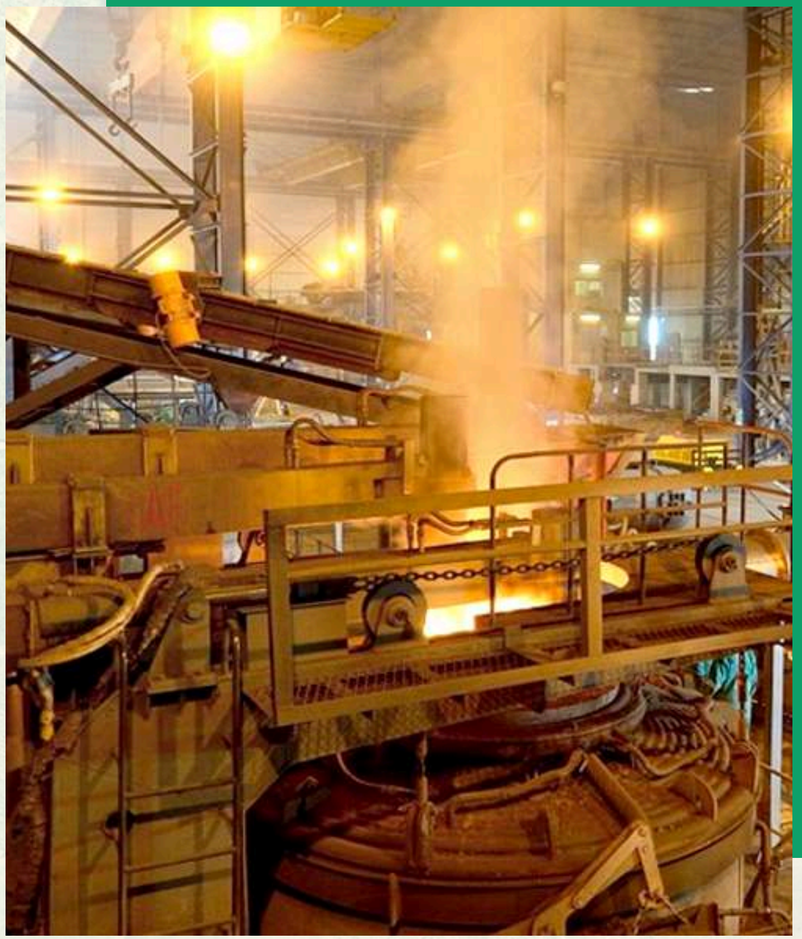
GULF ALLOYS AND METALS' REBAR MILL PROJECT FORECAST AND STOP FINANCIAL IMPACTS DUE TO CBAM

This case study explores the steps taken by Gulf Alloys and Metals to ensure compliance with the Carbon Border Adjustment Mechanism (CBAM) for their rebar mill project

GULF ALLOYS AND METALS

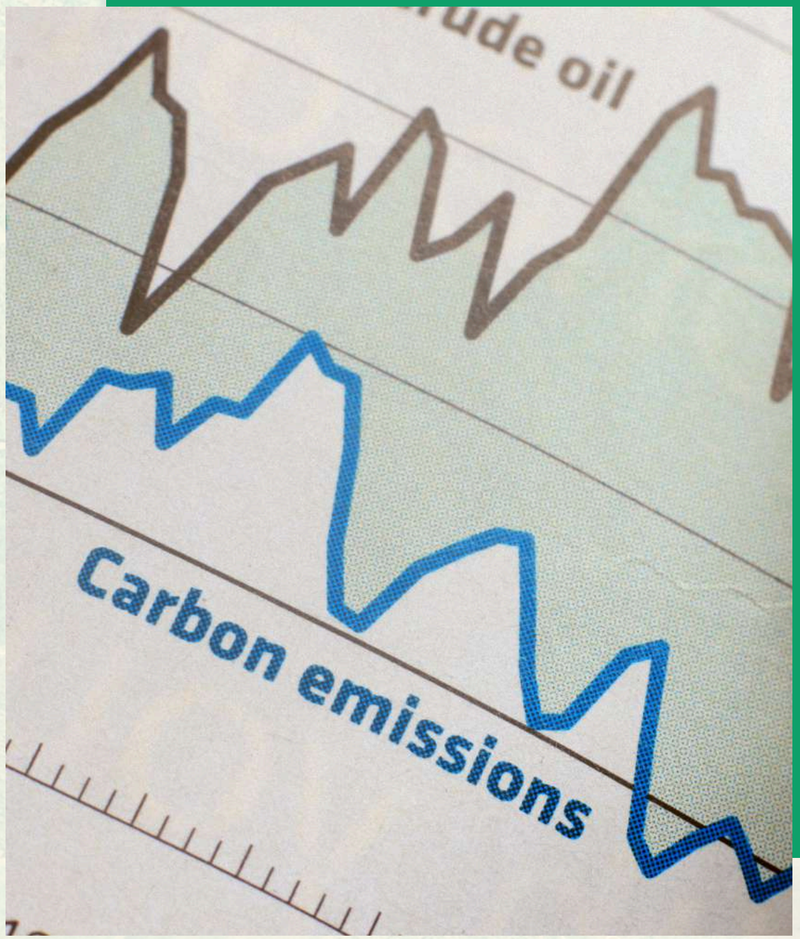
Client Overview

In the bustling heart of the industrial city, Gulf Alloys And Metals stood as a beacon of innovation and sustainability. This company, renowned for its alloy and steel manufacturing, was about to embark on a journey that would redefine its legacy. The new Rebar Mill project, powered by an electric arc furnace, was not just another addition to their portfolio but a leap towards a sustainable future.



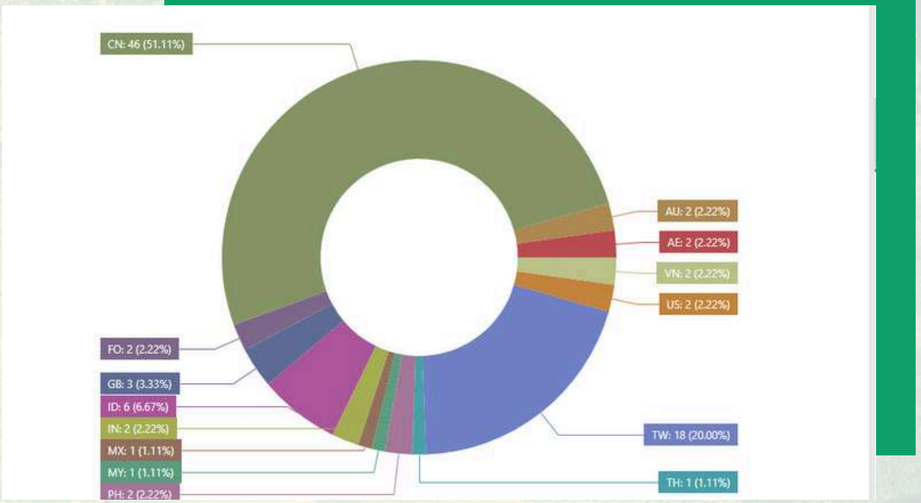
Scope

- Incorporation of scrap metal usage to enhance sustainability.
- Benchmarking energy efficiency metrics across the production line.
- Establishing a comprehensive framework for emissions tracking and reporting for CBAM



Business Challenges

- **CBAM Reporting Platform Access:** Complex due to varying decentralized protocols and technical issues, like commodity code errors.
- **Data Collection Across Supply Chains:** Importers struggle to obtain necessary data from multi-tiered supply chains, particularly from non-EU suppliers with privacy concerns or reluctance to share information. Implementing a mechanism for direct data access by DG TAXUD could help resolve this issue.
- **Cost Optimization:** Balancing CBAM compliance costs with profitability in a resource-intensive operation.
- **Data reporting:** Ensuring that suppliers submit reports on time and in the correct format.



Solutions Provided by CleanCarbon.ai

EMISSIONS BENCHMARKING AND REPORTING:

- Conducted a detailed analysis of the electric arc furnace operations to quantify emissions and identify high-impact areas for reduction.
- Benchmarked emissions against industry standards to ensure compliance with CBAM regulations.

DATA INTEGRATION:

- Incorporated data on scrap metal usage, energy consumption, and emissions into a centralized reporting system.
- Enabled real-time tracking and transparent documentation for CBAM submission.

GAP ANALYSIS:

- Compare practices against CBAM REQUIREMENTS.

STRATEGIC COST MANAGEMENT:

- Developed a detailed cost structure, covering emissions reduction measures and CBAM compliance fees.
- Provided insights into long-term savings through sustainable production practices.

READINESS ASSESSMENT:

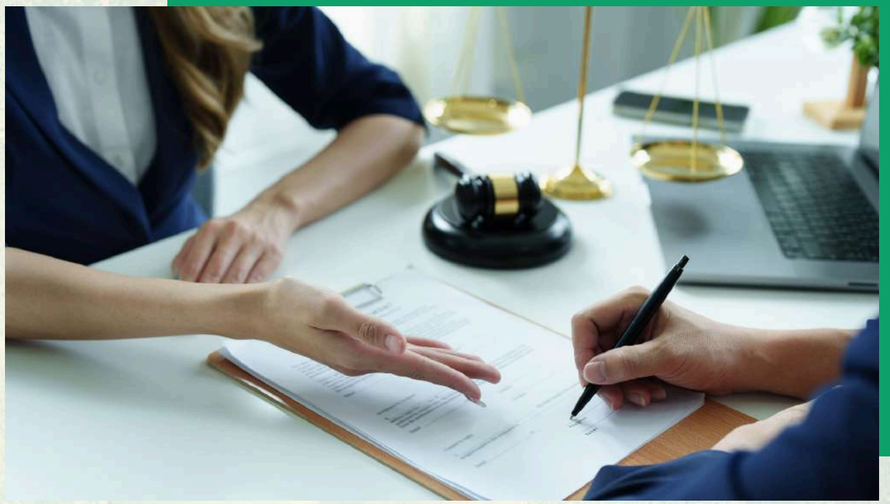
- Develop a roadmap for continuous improvement, ensuring that progress is measured and reported consistently to maintain transparency and accountability.

Cost Structure

- **Emissions Reduction Investments:** Costs associated with upgrading furnace technology and optimizing scrap metal utilization.
- **CBAM Compliance Fees:** Minimal expenses attributed to meeting documentation and reporting standards.
- **Operational Adjustments:** Minor costs for process changes, offset by significant energy and raw material savings.

Result

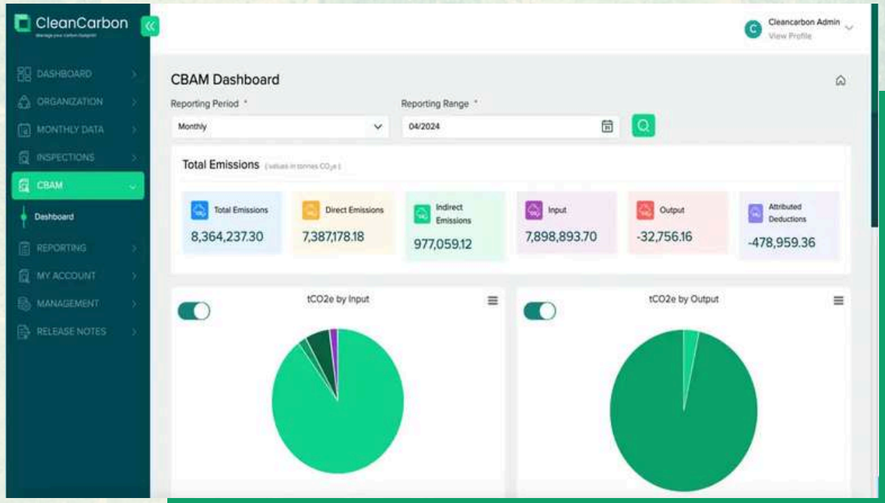
- Regulatory Compliance: Achieved seamless CBAM compliance, securing Gulf Alloys And Metals' export operations to the EU.
- Emission Reductions: Lowered overall emissions intensity through energy-efficient practices and increased scrap metal usage.
- Cost Savings: Enhanced profitability by cutting raw material and energy costs without compromising output quality.
- Sustainability Leadership: Positioned Gulf Alloys And Metals as an environmentally responsible leader in the rebar manufacturing industry.



Operational Insights

Strategies for Achieving CBAM Compliance:

- Developed a comprehensive plan to achieve CBAM compliance without compromising profitability, focusing on cost-effective emissions reduction measures.
- Leveraged CBAM software to forecast the financial and environmental impact of various compliance strategies.



Representative, Gulf Alloys And Metals

"CleanCarbon.ai’s solutions have not only enabled us to meet CBAM compliance but have also laid out a clear route toward sustainable and profitable operations. Their expertise and tools have been essential for the success of our Rebar Mill project."

Conclusion

CleanCarbon.ai’s collaboration with Gulf Alloys And Metals exemplifies how tailored CBAM solutions can empower manufacturers to align with regulatory frameworks while enhancing operational sustainability. Gulf Alloys And Metals’ commitment to sustainable practices, supported by CleanCarbon.ai’s innovative strategies, has set a benchmark for rebar production in an eco-conscious world.