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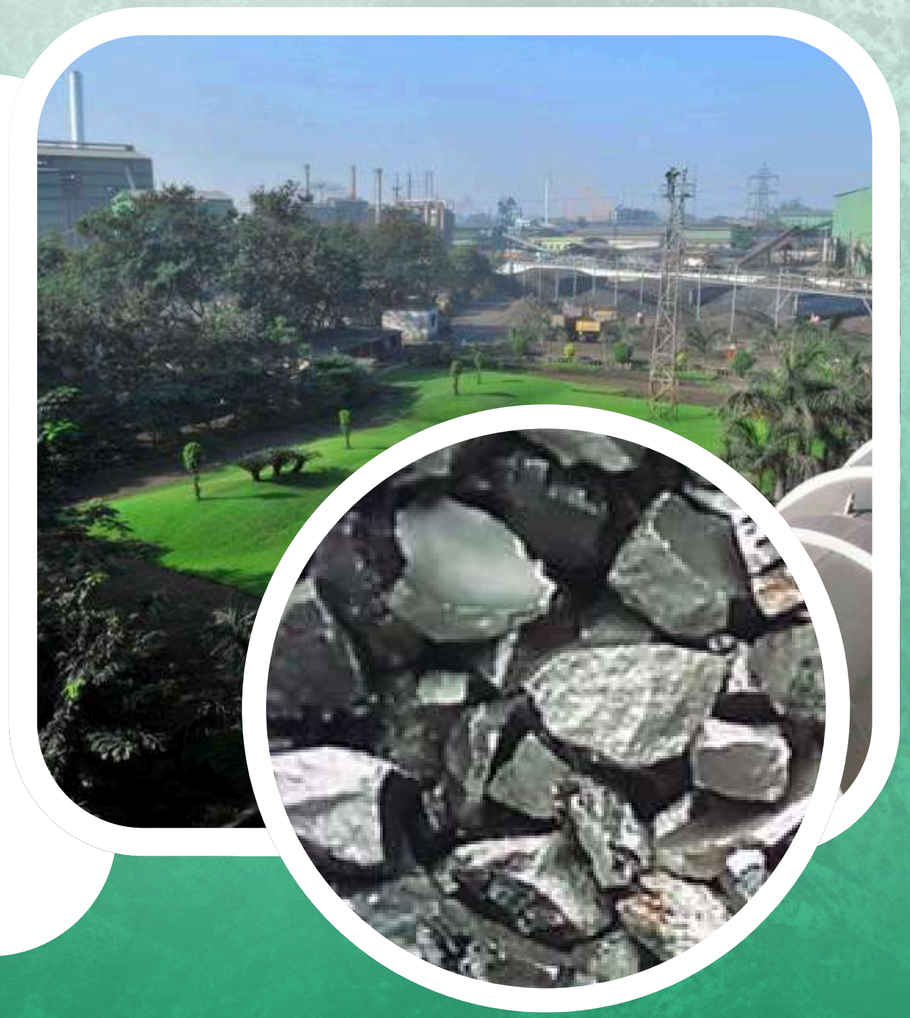
Scaling Sustainable Steel: How Hira Power & Steels Limited Future-Proofed Its EU CBAM



Case Study

CleanCarbon Expert CBAM Analysis and Reporting X HIRA HIRA POWER & STEELS

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Client Overview

Founded in 1984 and based in Raipur, Chhattisgarh, Hira Power & Steels Limited has evolved into a vertically integrated giant. With captive power plants, extensive dolomite/limestone mines, and state-of-the-art submerged arc furnaces, Hira Power & Steels Limited serves over 350 major industries worldwide. As one of India's largest producers of ferro alloys (including Ferro Silicon, Silico Manganese, and Medium/Low Carbon Ferro Manganese), the company's operations are inherently high-energy and subject to rigorous global environmental scrutiny.

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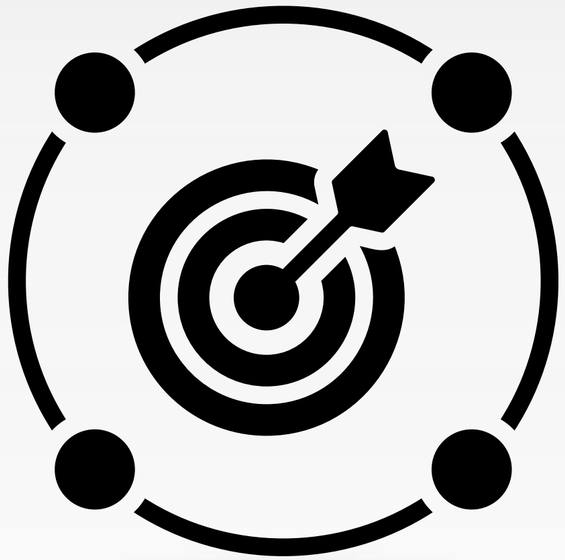
Business Challenges

- **High Carbon Complexity:** The ferro alloy production process involves multiple stages—from mining raw materials to high-temperature smelting in electric arc furnaces—each with distinct carbon emission profiles.
- **Energy-Intensive Reporting:** While Hira Power & Steels Limited maintains captive power plants, along with significant utilization of solar (renewable) energy, reporting the precise emissions per unit of alloy produced—while differentiating between captive energy usage, renewable energy consumption, and grid exports—required a level of data granularity that manual spreadsheets could not support.
- **Market Access Risk:** As an exporter to the EU, any delay or inaccuracy in reporting embedded carbon could result in significant financial penalties or the application of unfavorable "default values," which would erode the cost-competitiveness of their premium alloys.

Solutions Provided by Cleancarbon.ai

- **End-to-End Emissions Mapping:** CleanCarbon.ai established a direct data link between Hira Power & Steels Limited’s production logs and energy management systems, enabling automated, real-time calculation of Scope 1 and Scope 2 emissions across all smelting furnaces.
- **Complex Data Consolidation:** The platform consolidated data from Hira Power & Steels Limited’s diverse assets—including its captive power plants and mining units—to provide a single, auditable dashboard for EU regulatory filings.
- **Audit-Ready Documentation:** CleanCarbon.ai generated precise, EU-compliant quarterly reports, ensuring that Hira Power & Steels Limited’s data was verifiable, transparent, and ready for immediate submission to European regulatory authorities.

Result



- **Penalty-Free Compliance:** Hira Power & Steels Limited maintained a 100% submission success rate, completely avoiding the financial risks and trade disruptions associated with non-compliance or inaccurate carbon reporting.
- **Optimization of Export Margins:** By providing precise "actual" emission data rather than relying on EU-imposed "default values," Hira Power & Steels Limited maintained its competitive pricing in European markets, protecting its position as a preferred global supplier.
- **Strategic Operational Insights:** The visibility gained through CleanCarbon.ai's analytics allowed Hira Power & Steels Limited's leadership to identify specific energy-intensive processes for potential upgrades, aligning with their long-term sustainability and ESG goals.
- **Enhanced ESG Credibility:** With a verified, transparent carbon footprint, Hira Power & Steels Limited reinforced its brand as a responsible, forward-thinking leader in the Indian steel sector, strengthening trust with institutional clients.

Conclusion

For large-scale, integrated manufacturers like Hira Power & Steels Limited, CBAM compliance is not just a regulatory task—it is a critical business function. Through CleanCarbon.ai, Hira Power & Steels Limited has successfully integrated carbon accountability into its manufacturing excellence, ensuring that its global leadership in the ferro alloys industry remains secure, profitable, and sustainable.

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