The real driver behind green steel: scrap metal recycling

Globally, the steel industry faces growing pressure to reduce carbon emissions and embrace sustainable practices. While future technologies like hydrogen-based steelmaking and carbon capture offer hope, they remain years away from widespread adoption. Fortunately, there is a proven, immediately available solution making a significant impact today: scrap metal recycling.

Steel produced in electric arc furnaces (EAFs) using recycled scrap can reduce carbon emissions by up to 80% compared to traditional blast furnace methods. This is because scrap metal, having already been mined, processed, and utilised, saves enormous amounts of energy when recycled eliminating the need for fresh iron ore and the associated environmental cost of mining and processing it.

Every tonne of scrap metal recycled means less mining, reduced energy consumption, and significantly lower CO_2 emissions. For South Africa, this presents a great opportunity. The country's scrap metal recyclers are already supplying high-quality, sustainable raw material to local steelmakers, helping to drive the green steel transition.

Yet, despite this critical role, policy and industry discussions often focus narrowly on steel production technologies, overlooking the foundational contribution of scrap recycling. "Scrap recycling is not waste management; it is resource management. Our industry is ready and able to deliver the raw material that makes green steel a reality. What we need is fair recognition and support to keep doing it," said **Quintin Starkey**, Committee Member of the Metal Recyclers Association of South Africa (MRA).

Green steel may be the future of the industry, but thanks to scrap metal recyclers, that future is already here. The MRA remains committed to advocating for the vital role of metal recycling in building a low-carbon economy and ensuring South Africa remains a key player in sustainable steel production.

Read further:

https://blog.metalmetre.com/green-steel-vs-conventional-steel/
https://blog.metalmetre.com/scrap-metal-recycling-the-unsung-hero-of-sustainability/

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