HIGHER COST OF GREEN HYDROGEN MAY LIMIT WIDER ADOPTION

'Indian Steel Cos' Carbon Intensity 12% Higher than Global Average'

Demand for green steel to pick up post 2030 led by end-user industries

Our Bureau

Mumbai: The carbon intensity for steelmakers in India will remain high in the medium term, given that most of the capacity addition in steel planned for the next few years is through the blast furnace route, ratings agency Icra said.

While the local industry is taking steps for cutting carbon emissions, it is majorly through usage of renewable energy and operational efficiencies. These measures will help reduce the intensity of emissions by around 19% by fiscal 2030, it said.

At 2.5 tonnes of CO2 per tonne of steel, the average carbon emission intensity of steelmakers in India is 12% higher than the global average. With the initiatives taken by steelmakers, this is expected to reduce to 2.0 tonne of CO2 per tonne of steel by fiscal 2030.

Use of green energy and operational efficiencies to help local cos cut emissions by about 19% by FY30, says ICRA

"The planned capacity additions of about 80-85 million tonnes (mt) in India by 2030-31 are heavily skewed towards the coal-based BF-BOF route, the share of which will increase from ~45% currently to roughly 51% by 2030-31, reflecting a high carbon intensity in the medium term," said Girishkumar Kadam, group head for corporate sector ratings at Icra.

While steelmakers have announced around 9 GW of captive renewable power capacity, capacity for electric arc furnace is constrained because of the limited availability of scrap in India. The cost of green hydrogen is also not viable at the current price of $3 per kg, which is likely to limit its wider adoption.

The demand for green steel, though, is seen picking up after 2030 led by end-user industries and tighter compliance norms.

"While India's green steel ambition is strategically aligned with global trends, its realisation remains a long-term aspiration rather than an imminent shift, with economics, technology readiness and policy support determining the pace and scale of adoption," ICRA said.