Jindal Stainless to invest ₹700 crore in renewables, sustainability projects

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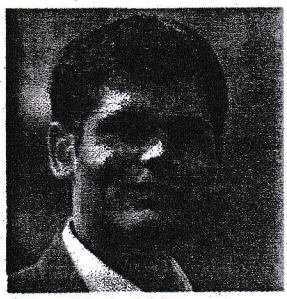
Jindal Stainless Ltd (JSL) will invest ₹700 crore over the next three years. The said investment will be used towards sustainability projects including renewable energy. The move is aimed at reducing its carbon foot-print, including the embedded emissions across its offerings.

According to Abhyuday Jindal, Managing Director, JSL, investments will come from internal resources. Upcoming renewable energy projects would be for own consumption only, with the benefits accruing "some years post their commissioning". In all, JSL would look to have 300-350 MW of renewable power sources available across its manufacturing units in India – Hisar (Haryana) and Jajpur (Odisha). The long-term plan is to be net carbon zero by 2050, while the short-term plan is to bring down emissions by 50 per cent by 2035.



Abhyuday Jindal, Managing Director, Jindal Stainless

The major renewable projects include two 100-MW RE-RTC (renewable energy – round the clock) projects at Jajpur; 100-MW RE-RTC at Hisar; 34.5-MW peak (23 MWp Rooftop Solar + 7 MW Floating Solar + 4.5 MWp Rooftop at Hisar), among others.

The other sustainability projects include use of electric forklift, chrome pelletisation, using combustion catalyst in boilers, use of waste-heat recovery in arc furnaces, fuel switching from LPG to natural gas, increase in use of recycled input by 5 per cent, and biomass substitution (to the extent of 7 per cent of coal usage). This apart, two green hydrogen plants are being planned – Hisar and Jajpur.

"We want to shift our entire energy requirements to renewable power over the years. Jajpur has 200 MW of renewable power, round the clock; and Hisar will have 100 MW," Jindal told *businessline* on the sidelines of the installation of its first green hydrogen plant at Hisar. The plant was inaugurated by Union Steel Minister, Jyotiraditya Scindia, on Monday.

GREEN HYDROGEN

"This will be the first-ever commercial long-term off-take agreement of green hydrogen in India, and also the world's first off-grid green hydrogen plant for the stainless steel industry," Jindal said. The plant has both renewable and gas units, and is being developed in partnership with Hygenco Ltd on a long-term Build-Own-Operate-Transfer basis. This will consist of a 2.8-MWp rooftop unit and a floating solar; 1.6-MW advanced electrolyzer, hydrogen storage and purification unit critical plant control technology, among others.

According to Jindal, with the green hydrogen facility, the company aims to reduce carbon emissions by 2,700 tonne per annum and 54,000 tonnes of CO_2 emissions over 20 years.

The green hydrogen generated will replace the current source of hydrogen – with the ammonia shipped to JSL's Hisar facility, which will be cracked. Approximately 2,070 mtpa ammonia will be cracked annually at this facility.