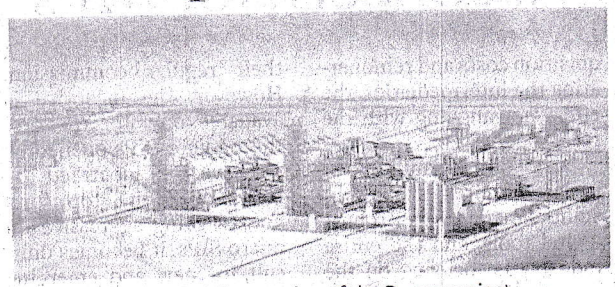
Naveen Jindal Group plans to commission phase 1 of Oman green steel plant by December 2028

Abhishek Law
New Delhi



BLUEPRINT. Artist's impression of the Duqm project

Naveen Jindal-promoted Jindal Steel Duqm — the Oman-based entity — plans to operationalise the first phase of its hydrogen-enabled green steel plant in December 2028. The first phase will have a capacity of 2.5 million tonne per annum (mtpa) of green steel. The second unit, called DRI 2, is scheduled for commissioning by 2030, sources said.

The project will have an investment of ₹25,000 crore ($3 billion) to be funded through a mix of debt and equity.

The plant will produce hot briquetted iron (HBI) and direct reduced iron (DRI) with low-carbon footprint, primarily targeting the European markets.

Part of the Naveen Jindal Group, the Oman-based company is in the process of setting up the 5-mtpa hydrogen-enabled green steel complex in the Special Economic Zone at Duqm (SEZAD), Sultanate of Oman. In 2022, the group signed a Memorandum of Understanding and land allocation agreement with the Government of Oman.

SWITCH TO HYDROGEN

A senior company executive told *businessline* that the facility will initially run on natural gas, but will be capable of switching to green hydrogen once the supply infrastructure matures.

As per initial plans, the integrated steel complex will consist of two DRI modules of 2.5 mtpa each.

"Both DRI units are engineered to be hydrogen-ready from the beginning," the executive said.

Naveen Jindal Group is yet to respond to queries by *businessline*.

According to a source, Jindal Steel Duqm has informed the Government of Oman that hydrogen will be injected into the DRI process as soon as regular supply is ready, and the equivalent amount of natural gas will be phased out.

Talks are on with investors and other stakeholders for securing "stable hydrogen supplies".

The company expects to start hydrogen injection by 2033, with 10-15 per cent hydrogen usage targeted by 2035.

The green hydrogen required for this transition is expected to come from multiple renewable energy and green hydrogen projects being developed in Duqm by the Government of Oman and private investors.

PROJECT SPECIFICS

As per plans, the idea would be to have steel being produced with a carbon footprint of 600 kg of CO_2 per tonne (of the alloy produced), and this would be recognised as green steel.

The use of Electric Arc Furnace (EAF) technology in combination with the DRI route will allow for a more flexible and cleaner steel production model.