

Hygenco Commissions Green Hydrogen Plant for Indian Optical Fibre Maker

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Project Photon Leap — Maharashtra's first green hydrogen and green oxygen production facility, Chhatrapati Sambhaji Nagar. Commissioned July 2025.

Project Photon Leap comes as Hygenco's **third operational green hydrogen plant**, and will supply clean gases to optical fibre maker **Sterlite Technologies Ltd. (STL)** through a long-term offtake agreement. STL will use the gases in its glass preform facility.

Hygenco Green Energies has commissioned **Maharashtra's first green hydrogen and green oxygen production facility** in Chhatrapati Sambhaji Nagar, marking a significant milestone in India's journey towards sustainable manufacturing and industrial decarbonization.

The newly inaugurated plant will enable STL to become the **world's first optical fibre manufacturer to deploy 100% green hydrogen** in its production processes, supporting its goal to achieve Net Zero by 2030.

Hydrogen and oxygen are traditionally used as fuel and oxidiser to enable the high-temperature processing and chemical reactions required to form ultra-pure glass. According to Hygenco's project summary, the gases will be supplied through **dedicated pipelines** and are expected to reduce the preform facility's annual carbon emissions by around **30%**.

Developed under a long-term offtake agreement, Hygenco will **build, own, and operate** the facility for **20 years** — ensuring a reliable and commercially viable supply. The facility features advanced autonomous energy management systems, real-time monitoring, and automated control technologies, enhancing safety and operational efficiency.

The project follows the commissioning of Hygenco's earlier green hydrogen plants — **Project Heartland** at Ujjain, Madhya Pradesh (2022) and **Project Steel One** at Hisar, Haryana (2024) — as it looks to deploy a highly ambitious **10 GW** of green

hydrogen and ammonia assets by 2030.

CEO Statements

Amit Bansal, CEO, Hygenco Green Energies:

"Green hydrogen has the potential to be a game-changer in India's journey towards sustainability. Our partnership with STL represents a bold step forward in decarbonising industrial processes. We are proud to enable STL to lead the global optical fibre industry into a new era of green manufacturing."

Rahul Puri, CEO — Optical Networking Business, STL:

"By leveraging 100% green hydrogen for its glass preform manufacturing, STL is setting a new global benchmark for decarbonization in the optical fibre industry. Our collaboration with Hygenco exemplifies our commitment towards sustainability and operational excellence. We are proud to lead the way in integrating green hydrogen into large-scale manufacturing."



STL's Industry 4.0-enabled Glass Preform manufacturing facility, Chhatrapati Sambhaji Nagar, Maharashtra.

About the Project

STL's semiconductor-grade Glass Preform manufacturing facility in Chhatrapati Sambhaji Nagar is an Industry 4.0-enabled plant focused on producing Glass Preforms — essential components for high-quality optical fibres. Hydrogen and oxygen serve as fuel in blast furnaces to convert silica particles into glass.

Previously, STL used electrolyzers running on conventional energy to source hydrogen in cylinders, carrying occupational health hazards. Renewable energy-based electrolyzers installed by Hygenco now enable STL to in-source its hydrogen requirement entirely from green sources.

About Hygenco Green Energies

Headquartered in Gurgaon, India, Hygenco develops and deploys large-scale commercially attractive green hydrogen and green ammonia assets. The company is investing **\$2.5 billion** over three years to set up green hydrogen projects across India, targeting **10 GW** of commissioned assets by 2030.

About STL

STL (Sterlite Technologies Ltd., NSE: STLTECH) is a leading global optical and digital solutions company providing advanced offerings to build 5G, Rural, FTTx, Enterprise and Data Centre networks.

