

Helping bring the world's first large-scale, near-zero emissions steel plant online

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Google is partnering with Stegra to help bring their large-scale, green hydrogen-based, near-zero emissions steel plant online.

We're partnering with Stegra to help bring the world's first large-scale, green hydrogen-based, near-zero emissions steel plant online. The steel is designed to meet the International Energy Agency's (IEA) definition for near-zero emissions steel production, marking an important step toward addressing the impact of the hard-to-decarbonize steel industry.

While traditional steel manufacturing relies on coal to process iron, Stegra's plant in Boden, Sweden, will use renewable electricity to generate green hydrogen. The hydrogen is then reacted with iron ore to produce iron. Stegra estimates that removing coal from the process can cut emissions by up to 95% compared to traditional blast furnace manufacturing.

Under the new agreement, Google will receive environmental attribute certificates (EACs) from a portion (up to 91,000 metric tons) of the steel produced in Stegra's first year of production. Companies purchase EACs to drive demand for sustainably produced materials, address construction emissions, and help scale and finance these early stage technologies.

By supporting innovative technologies and partnering with coalitions like the Sustainable Steel Buyers Platform, we hope to bring more green building materials to market and increasingly incorporate them into our own operations. We estimate this can reduce the embodied carbon emissions from data center infrastructure by up to 40%. In 2025, we successfully integrated low-carbon concrete, steel, or a combination of both in over 20 construction projects.

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