Verbund





Linz, July 8, 2025

voestalpine and VERBUND expand the world's longest-running hydrogen pilot plant H2FUTURE in Linz

voestalpine and VERBUND are further extending the successful and one of the world's longest-running PEM electrolysis plants, H2FUTURE, in Linz. The expansion includes the production, compression, purification, storage, loading, and further use of green hydrogen. To this end, the plant at the voestalpine site—commissioned in 2019 as the world's largest hydrogen pilot project at the time—will be expanded to include a compression and purification plant, as well as five hydrogen storage tanks. The costs for expanding the research project amount to EUR 16.4 million.

H2FUTURE Follow-up is a joint research project of the international steel and technology group voestalpine and Austria's largest electricity supply company VERBUND. As an integral part of H2FUTURE Follow-up, the previous research activities on hydrogen production are being systematically continued in terms of quality characteristics of purity and pressure. The hydrogen is stored in the newly constructed storage tanks until it is loaded for transport and further use. Preparations for the plant expansion have been underway for two years; installation of the facilities is now in progress. Functional tests will start in January 2026 and the first research results are expected at the end of 2026. The project ends in December 2029.

voestalpine will be using the green hydrogen in other Group research projects. "With greentec steel, we are pursuing a clear phased plan for transformation. We are already working intensively on the first stage and will be commissioning a green electricity-powered electric arc furnace at both Linz and Donawitz from 2027. At the same time, two coal-based blast furnace units will be retired. In the long run, we are aiming for steel production with net-zero-CO<sub>2</sub>-emissions by 2050. Hydrogen will play an important role here. Together with our partner VERBUND, we will gain further crucial insights through H2FUTURE Follow-up," says Herbert Eibensteiner, CEO of voestalpine AG.

# Joint research project with VERBUND

"Within the scope of H2F-Up, VERBUND is focusing on the production, compression, and purification of hydrogen under fluctuating conditions. With a storage capacity of one ton of hydrogen, we are able to compensate for fluctuations in production and therefore ensure a constant supply for our customers. H2FUTURE set standards in 2019 as the world's largest hydrogen pilot project, and I am delighted that we can continue our successful cooperation with voestalpine and the H2FUTURE Follow-up project," says Michael Strugl, CEO of VERBUND.

## H2FUTURE—the world's longest-running hydrogen pilot plant

The H2FUTURE plant, which has been in operation since 2019, is one of the world's longest-running proton exchange membrane (PEM) electrolysis plants. It consists of 12 "stacks," each with







50 electrolysis cells, and has a connected load of six megawatts. This plant can produce 1,200 cubic meters of green hydrogen per hour. Since its commissioning, it has produced several hundred tons of green hydrogen, and carried out numerous test programs. A "stress test" confirmed the load capacity of the system in continuous operation and its ability to react quickly to large load changes. It is used in particular to compensate for frequency fluctuations in the electricity grid caused by the irregular availability of renewable energies or varying electricity demand.

#### The voestalpine Group

voestalpine is a globally leading steel and technology group with a unique combination of materials and processing expertise. voestalpine, which operates globally, has around 500 Group companies and locations in more than 50 countries on all five continents. The voestalpine Group has been listed on the Vienna Stock Exchange since 1995. With its premium products and system solutions, voestalpine is a leading partner to the automotive and machinery industries, as well as to the aerospace and energy industries. The company is also the global market leader in railway systems and special sections. voestalpine is committed to the global climate goals and has a clear plan for transforming steel production with its greentec steel program. In the business year 2024/25, the Group generated revenue of EUR 15.7 billion, with an operating result (EBITDA) of EUR 1.3 billion; it has around 49,700 employees worldwide.

# **About VERBUND**

VERBUND is Austria's leading energy company and one of Europe's largest generators of electricity from hydropower. The company generates around 96% of its electricity from renewables, primarily hydropower. VERBUND trades in electricity in 12 countries and achieved an annual turnover of approximately EUR 1,875 million and an EBITDA of around EUR 3,480 million in 2024 with around 4,100 employees. With its subsidiaries and partners, VERBUND is active in the segments of electricity generation, transport, and international trade and distribution. VERBUND has been listed on the Vienna Stock Exchange since 1988, with 51% of the share capital held by the Republic of Austria. Further information at <a href="https://www.verbund.com">www.verbund.com</a>

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