ONE SCIENTIFIC

Nov 5

ONE SCIENTIFIC and AMBARtec Sign Letter of Intent for Hydrogen Pilot in Germany

Companies to evaluate an integrated system that produces lower-cost hydrogen without electrolysis and stores it using AMBARtec's HyCS technology

JOHNSON CITY, Tennessee, and DRESDEN, Germany, November 5, 2026 — ONE SCIENTIFIC and AMBARtec AG have signed a Letter of Intent to advance a proposed hydrogen production and storage pilot at AMBARtec's demonstration facility in Freiberg, Germany.

The collaboration will demonstrate how ONE SCIENTIFIC's heat-driven technology can produce hydrogen from water without electrolysis and feed AMBARtec's HyCS hydrogen storage system. Loading the HyCS storage system requires heat input to drive the reduction of iron oxide. The hot steam released in this process is fed directly into ONE SCIENTIFIC's system, where it is used to produce hydrogen. Using this heat and producing hydrogen at the point of use significantly reduces hydrogen production costs. In addition, combining the two technologies supports a more integrated approach to industrial hydrogen supply.

The Phase 1 pilot will deploy a single ONE SCIENTIFIC module capable of producing approximately one kilogram of hydrogen per hour. The companies will evaluate operating performance, system reliability and the potential for expansion.

"This Letter of Intent represents an important step toward demonstrating our technology in an industrial setting," said Jon Barnwell, Cofounder and COO of ONE SCIENTIFIC. "Working with AMBARtec gives us an opportunity to demonstrate how available thermal energy from the HyCS process can support lower-cost, onsite hydrogen production without electrolysis while complementing hydrogen storage."

"HyCS is designed to store and release hydrogen safely and efficiently," said Uwe Pahl, CTO of AMBARtec. "This pilot will evaluate the use of thermal energy from our process to support onsite production of the hydrogen needed for the loading cycle. Our goal is an integrated solution that improves system efficiency and reduces dependence on conventional electrolysis."

The collaboration was facilitated by Hebmüller Verwaltung GmbH, with early support from the East Tennessee State University Innovation Laboratory and its director, Audrey Depelteau.

“We are pleased to have helped bring ONE SCIENTIFIC and AMBARtec together,” said Axel Hebmüller of Hebmüller Verwaltung GmbH. “The collaboration combines complementary technologies and creates an opportunity to demonstrate a new approach to integrated hydrogen production and storage.”

If Phase 1 is successful, the companies intend to evaluate a larger Phase 2 system capable of producing up to 20 kilograms of hydrogen per hour. This system is designed to pave the way for commercial applications that combine onsite production with AMBARtec’s storage technology.

About ONE SCIENTIFIC

ONE SCIENTIFIC Inc. is a U.S.-based clean energy technology company developing a patented, heat-driven process for producing hydrogen from water without conventional electrolysis. Its proprietary Steam Catalyzer technology combines thermal energy, advanced catalytic materials, and magnetic fields to enable modular, point-of-use hydrogen production with the potential to significantly reduce electricity consumption, production costs, and reliance on hydrogen logistics. Through independent testing and strategic industrial collaborations, ONE SCIENTIFIC is advancing its technology toward commercial deployment in industrial applications, supporting a more efficient, affordable, and scalable hydrogen economy. Learn more at https://www.onescientific.com

About AMBARtec

AMBARtec AG designs and builds plants for producing, storing and transporting hydrogen. Its technology is based on the steam-iron process: when the HyCS storage system is loaded, hydrogen reduces iron oxide to iron; at the point of use, steam releases the hydrogen again. The iron oxide nuggets developed by AMBARtec offer the cycle stability required for economical continuous operation. A field test lasting several months at the demonstration facility in Freiberg confirmed the energy balance of the overall process. For hydrogen production from residual, landfill and synthesis gases, AMBARtec works with its partner Rouge H2 Engineering AG of Graz, Austria, achieving a hydrogen purity of 99.5%. Learn more at https://www.ambartec.de/

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ONE SCIENTIFIC and Hebmuller Aerospace Collaborate to Unveil HydroGenMHD: Groundbreaking Onsite Hydrogen Generation Technology at the 2023 Hydrogen Technology Expo in Bremen, Germany

Stay informed about our progress, pilot results, and new collaboration opportunities.

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