



ZEROAVIA AND ABSOLUT HYDROGEN PARTNER TO DEVELOP LIQUID HYDROGEN REFUELING INFRASTRUCTURE FOR AIRCRAFT OPERATIONS

News / Manufacturer



ZeroAvia and Absolute Hydrogen announced a partnership to jointly explore liquid hydrogen (LH2) production, storage and refueling at airports. Partners will work together to build and demonstrate liquefaction and liquid hydrogen storage in an airport context and ultimately explore the technology developments, concept of operations, safety procedures and standards for larger-scale deployment to deliver liquid hydrogen to aircraft.

Grenoble-based Absolute Hydrogen is a world leader in developing LH2 systems for heavy-duty mobility for aeronautical, maritime and land applications, building upon Groupe Absolute's expertise and deep industry knowledge in complex cryogenic systems. Absolute Hydrogen is offering a full LH2 product range with an entry small scale hydrogen liquefaction system (< 50 kg/day), a 100 kg/day Turbo-Brayton based H2 liquefier and a 1T/day liquefier based on the same technology.

Whilst ZeroAvia first certified powertrains for up to 19 seat aircraft will be powered by gaseous

hydrogen, ZA2000—a 2–5.4 MW modular powertrain for 40–80 seat aircraft, targeting entry-in-service in 2027—will require liquid hydrogen. This will improve the volumetric energy density of the fuel, enabling support for larger aircraft, flying more passengers, on longer typical routes. The move further cements ZeroAvia’s advantage at developing solutions for large regional turboprops and beyond, following the recent announcement of its high temperature fuel cell technology promising the necessary power for larger aircraft.

Arnab Chatterjee, VP Infrastructure, ZeroAvia, commented: “As well as building our in-house liquid hydrogen knowledge over the last few months, it has been critical to establish partnerships to begin building the ecosystem that can deliver liquid hydrogen fuel for larger aircraft, at larger airport locations. Retaining and growing aviation will bring us all closer together and keep the world small, but it depends upon this quest for zero-emission aviation being successful.”

Jérôme Lacapère, CEO of Absolute Hydrogen, said: “This partnership with ZeroAvia is an opportunity to take a new step towards a more sustainable aviation. Liquid hydrogen is considered the most advantageous state for tomorrow's aviation and heavy-duty mobility in general, and Absolute Hydrogen enables its availability thanks to its H2 liquefiers. I am convinced this partnership will lead to new standards on liquid hydrogen infrastructure for aircraft.”

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