

Press Release



ASL Aviation Holdings Commits to Hydrogen-Electric Engine Order with ZeroAvia

Leading airline enters into purchase agreement for 20 hydrogen-electric engines for regional turboprop aircraft

[@Farnborough International Airshow: Tuesday 23rd July, 2023] — [ZeroAvia](#) today announced that [ASL Aviation Holdings](#) has signed a conditional purchase agreement for up to 20 hydrogen-electric engines for retrofit into its operated fleet of ATR regional turboprop aircraft – creating some of the world’s first zero-emission freight aircraft of this scale.

The firm order of 10 engines, with a further option for up to another 10 and an agreement related to retrofit services, builds on an [earlier MOU](#) between the two companies announced in November 2021. ASL Aviation has now committed to paying deposits to secure delivery slots, further expanding ZeroAvia’s total number of delivery slots sold.

Hydrogen-electric engines use fuel cells to convert hydrogen fuel into electricity using an electrochemical reaction. With no combustion of fuel, there are no CO₂ or other climate impacting emissions, save for low temperature water vapor. The electricity generated is then used to power electric motors which turn the propellers. Overall, it is estimated that fuel cell systems in aircraft could reduce in-flight emissions by around 90%. The systems will have the added advantage of lower maintenance costs for airline operators.

ZeroAvia has already successfully flown multiple test flights of a prototype 600kW system for 10-20 seat aircraft, with certification work already underway with regulators. The company has also demonstrated consistent technical progress in testing components for its 2-5 MW system (ZA2000) that will ultimately support aircraft within the ATR family, with ASL Airlines currently operating 13 such planes.

Exploring the potential for hydrogen-powered ATR freighter aircraft forms a core part of ASL’s wider ESG strategy, alongside reductions in existing Scope 1 and 2 CO₂ emissions across its eight owned and joint venture airline brands. The company has also developed an industry forum - [ASL CargoVision](#) - together with leading new technology companies to raise awareness of innovative new technologies and sustainability for air cargo operations.

James Peck, Chief Customer Officer, ZeroAvia, said: “ASL is a major player in freight and beyond, and they are forging the pathway to a sustainable future for the industry, not least in leading in the adoption of new, zero-emission propulsion technologies. Our commercial agreements are crystallizing into firmer commitments and for those looking on, that should be a clear signal of the rapid and successful technical progress we are making to deliver clean propulsion systems.”

Robert Somers, Group Director Change Management, ASL Aviation Holdings, said: “ASL has always believed that new lower or zero emissions propulsion technologies would be deployed first in the air cargo market, and as such of our responsibility as a global leader to



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explore how technologies such as ZeroAvia's hydrogen-electric engines can improve aviation sustainability. ASL's ESG strategy commits us to reducing aviation carbon emissions, by working with industry partners like ZeroAvia and we see the use of their powertrains on ATR aircraft as a significant step forward on the road to aviation sustainability in the best interests of people and the planet"

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About ZeroAvia

ZeroAvia is working to deliver the clean future of flight for the entirety of aviation by enabling electric propulsion. With a primary focus on developing hydrogen-electric (fuel cell-powered) engines, ZeroAvia has submitted its first powertrain for up to 20 seat planes for certification and is working on a larger powertrain for 40–80 seat aircraft. Founded in California and now with thriving teams in Everett, WA and the United Kingdom, ZeroAvia has secured experimental certificates to test its engines in three separate testbed aircraft with the FAA and CAA and passed significant flight test milestones. The company has signed a number of key engineering partnerships with major aircraft OEMs and has nearly 2,000 pre-orders for engines from a number of the major global airlines, with future revenue potential over \$10bn. For more, please visit ZeroAvia.com, follow @ZeroAvia on [Facebook](#), [Twitter/X](#), [Instagram](#), [LinkedIn](#), and [YouTube](#).

About ASL Aviation Holdings

ASL Aviation Holdings

ASL Aviation Holdings, a global aviation services company with five airlines based in Europe and Australia and three associate and joint-venture airlines in South Africa and Asia. ASL is a world leader in ACMI airline operations and both scheduled and charter cargo and passenger services.

Headquartered in Dublin, Ireland, ASL's airlines include ASL Airlines Ireland, ASL Airlines Belgium, ASL Airlines France and ASL Airlines United Kingdom in Europe and ASL Airlines Australia, formerly known as Pionair.

ASL also has an associate low-cost passenger airline, FlySafair, in South Africa and joint venture cargo airlines K-Mile Asia in Thailand and Quikjet Airlines in India.

ASL Aviation Holdings airlines operate cargo services for the world's leading express parcel integrators and eCommerce retailers. Group airlines also operate scheduled and charter cargo and services under its own airline brands on domestic, international, and intercontinental routes in Europe, Asia, the Middle East, North America and Africa. ASL has a global team of 3,000 people of 51 nationalities. The Group has a fleet of 150 aircraft that includes seven aircraft types ranging from the turbo-prop ATR 72 to the Boeing 747.

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