UK GOVERNMENT GRANT TO ZEROAVIA FOR THE DEVELOPMENT OF ZERO EMISSION AVIATION

News / Airlines, Business aviation

An important support to the development of Zero Emission Aviation, a grant of £2.7m (US$3.3 million) grant from the UK Government to ZeroAvia!

The UK Government grant is part of the ATI programme, supported by the Department for Business, Energy & Industrial Strategy, the Aerospace Technology Institute and Innovate UK, and will fund ZeroAvia's HyFlyer project to demonstrate principal technology readiness for a hydrogen fuel cell powertrain. The Government's grant is matched by Project HyFlyer participants, making the scope of the project in excess of £5m (US$6.2 million).

The project will culminate in a UK-based 250-300 nautical mile (NM) flight on a Piper M-class six-seater aircraft, which is a zero-emission combination of range and payload uniquely enabled by ZeroAvia's hydrogen powertrain. The HyFlyer project is a key step on ZeroAvia's journey towards supplying to commercial operators and aircraft manufacturers in 2022, initially targeting up to 500-mile regional flights in 10 to 20-seat fixed-wing aircraft. ZeroAvia's solution aims to deliver the same performance as a conventional aircraft engine, but with zero carbon emissions and at around half of the operating costs.

According to the Air Transport Action Group, aviation is responsible for 12 per cent of CO2 emissions from all transport sources and is one of the fastest growing sources of global emissions. ZeroAvia's mission is fully in step with the clean growth "grand challenge" within the United Kingdom's industrial strategy.

ZeroAvia's HyFlyer project also links closely to the five foundations of the UK Government's wider industrial strategy. It represents the kind of ideas befitting one of the world's most innovative economy, attracts a Silicon Valley company to setup a significant portion of their business in Britain's friendly business environment, promises jobs and improved infrastructure, and potentially boosts regional economies across the UK.

"The substantial backing provided by the UK Government underlines the potential that hydrogen holds as a fuel source for commercial aviation and provides significant validation of ZeroAvia's approach to zero emission flight," said Val Miftakhov, ZeroAvia Founder and CEO. "Our project goal of 300 NM is equivalent to the distance from London to Edinburgh and will prove that zero emission aviation, powered by hydrogen, can play a key role within the UK and other countries' transport strategies - enabling net zero targets to be met and improving productivity and regional prosperity."

"This exciting project, delivered with £2.7 million of Government support, further strengthens the UK's reputation as a global leader in aviation innovation," said Nadhim Zahawi MP, Parliamentary

Under Secretary of State (Minister for Business and Industry) at the Department for Business, Energy & Industrial Strategy. "We are leading the world in tackling climate change, going further and faster by becoming the first major economy to pass new laws for net zero emissions by 2050. The development of a practical alternative to fossil fuels within aviation has the potential to revolutionise domestic travel not just in the UK, but globally. I am looking forward to watching our businesses drive the development of this technology forward."

To launch Project HyFlyer, ZeroAvia will open UK operations in Cranfield, where it benefits from close proximity to key partners with which it has already built a working relationship over the past year. In Cranfield, ZeroAvia will build links to the UK's rich expertise in aerospace and clean technologies as it works through this project to decarbonise aviation. As part of the project, ZeroAvia is partnering with some of the most innovative technology, advanced manufacturing, energy and aviation companies in the UK:

The European Marine Energy Centre (EMEC) will investigate the infrastructure needed to fuel the aircraft with green hydrogen, initially on Orkney with a view to replicating this infrastructure across other airports over time. EMEC produces green hydrogen from wind and tidal energy and are driving the development of a hydrogen economy on Orkney, decarbonising power, heat and transport.

Market leading fuel cell engineering company Intelligent Energy will collaborate with ZeroAvia on the optimization of its evaporative cooling fuel cell technology for aviation use cases.

Cranfield Aerospace Solutions (CAeS) will assist with integrating ZeroAvia's powertrain into the Piper airframe and host the ZeroAvia team at their hangar facilities. With its expertise in airframe integration and modification as well as whole aircraft design, CAeS brings the best of the UK aerospace industry into this collaboration.

ZeroAvia will also form a technology partnership with Cranfield University, one of the leading aerospace universities worldwide, to benefit from its unique talent pool and aerospace & powertrain legacy.

As well as these key partners, ZeroAvia has been working with advisory and investment firm SYSTEMIQ to accelerate business development and aid European expansion. As its strategic partner, SYSTEMIQ was instrumental in helping ZeroAvia to secure the grant and in getting the project off the ground.

ZeroAvia has already begun flight testing its powertrain prototype in a Piper M-Class airframe in California. The United States Federal Aviation Administration issued an Experimental R&D Certificate to ZeroAvia's Piper M-Class R&D platform earlier this year. At a 2-ton takeoff weight and six seats in a business-class arrangement, it is currently the world's largest zero-emission aircraft flying without any fossil fuel support, according to the publicly available information and it has successfully completed a variety of test flights.

ZeroAvia is initially targeting 500-mile flights to serve the short-haul and commuter air travel markets, which make up nearly half the commercial flights worldwide. Powered by ZeroAvia powertrains, smaller zero-emission aircraft will be able to achieve similar per-seat economics as today's large regional jets, allowing economical use of smaller local airports for point-to-point travel

with virtually no security lines or delays, and a much more pleasant overall flying experience. In addition to passenger transport, the ZeroAvia powertrain will have applications across other use cases including cargo, air taxi, agriculture, as well as across the aircraft types, including manned and unmanned fixed-wing, rotorcraft, and everywhere in between.

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