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Titan Aviation and Electra Commercial Vehicles deliver zero-emission electric airport refueller

By **Ian Osborne**

Titan Aviation and **Electra Commercial Vehicles** have created the Titan-eRR20 **electric vehicle (EV)** together. It's a state-of-the-art 100 per cent electric refueller designed to reduce airport greenhouse gas emissions. This zero-emission refuelling truck will be shipped to and operate at an Irish Airport.

The strategic partnership between the two innovators will mean a significant turning point for decarbonising the airport's operations. It will be the first fully electric refueller in operation in Ireland.

The Titan-eRR20, mounted on an Electra e-Star electric chassis, is adapted explicitly for refuelling operations by Titan Aviation. The electric refuelling system can deliver more than 110,000 litres of Jet A1 or SAF on a single charge at flow rates of up to 2,500 LPM.

Its battery can be charged in around five hours using the onboard charger. The Titan-eRR20 is also equipped with the EZ CONTROL digital refuelling interface, which guides the user through every step of the job, facilitating maintenance and optimising operational safety.

Titan Aviation always puts the safety and comfort of the operators first. The electrification of the refuelling truck makes a huge difference in the daily life of operators

Richard Lewis, Titan Aviation civil aviation director, said: "Emissions reduction is a global goal but of course it's also essential at the point of use. Titan's fully electric, zero-emission eRR20 has been designed with the operator in mind to offer the best possible working environment in terms of safety, ergonomics and comfort.

"The airport's operational staff will be in or around the refueller for their entire shift, so it being electric means they are no longer exposed to the engine exhaust gases from the engine revving to drive the pump, and of course, the noise, heat and vibration of traditional vehicles.

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"The Electra chassis offers unequalled ease of access, best-in-class visibility and intuitive controls. Overall, it's a much better environment for operational staff to work in."

In addition to these technical achievements, the Titan-eRR20 is a significant step towards decarbonising airport ground operations. Refuelling currently represents around 19 per cent of an airport's ground support equipment's CO₂ emissions.



Reaching net-zero targets is the primary concern of European airports presently, and the Irish Airport purchased the fully electric refueller with an EU grant covering 65 per cent of its purchase.

Ben Smith, Electra managing director, said: “Our strategic partnership means that we are at the forefront of innovation. This high-tech, fully electric airport refuelling truck underlines how by working together, we can help eliminate air pollution – the biggest threat to us and future generations.”


“Our past performance in the waste and temperature-controlled logistics sectors means that we have more than 100 successfully performing zero-emission fully electric vehicles on the road in the UK and Ireland.

“We are confident that we can emulate these successes in the airport industry thanks to the combined technical expertise of Titan Aviation’s and Electra’s highly trained staff and management.”

Lewis concluded: “Since we started our journey five years ago we have been far ahead of our rivals. We have had electrical solutions in operation at airports for nearly three years delivering remarkable performance and reliability.

“We have made significant investments into our exciting development journey while having to up-skill by bringing new talent into the group.

“We’re in a fantastic space right now and with partners such as Electra, we are working towards the next evolution in making air travel ever more sustainable and helping airports reach their critical climate ambitions.”

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