

Willis Lease takes long-term SAF approach

Hugh Davies

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With air transport almost fully recovered from the effects of the Covid-19 pandemic, 2023 saw the industry revert its focus back to the enormous challenge of reaching net zero CO2 emissions by 2050. While most will agree that the capital requirements needed to hit this target are substantial, industry leaders are divided on the concrete roles aircraft and engine lessors should play as financiers in the aviation industry's decarbonisation pathway.

The push to ramp up sustainable aviation fuel (SAF) production is front and centre for the industry.

Willis Lease Finance (WLFC), together with its subsidiary Willis Sustainable Fuels (UK) Limited, is the first aviation leasing company to launch a SAF initiative that will produce power-to-liquid (PtL) SAF, in Teesside, UK.

In an interview with *Airfinance Journal*, WLFC chief executive officer Austin Willis says while SAF production is a departure from the traditional engine lessor business model, it is an extension of WLFC's move into the services business.

"In the same way we have been successful in diversifying the business, we believe we can provide value through our distribution network. We are able to sell our aviation related services because of our relationships with airlines and an understanding of what they need, we are finding similarities with structuring SAF offtake agreements as well."

Willis recalls that the company has been exploring ways to participate in a decarbonised aviation future for several years, including the potential for aircraft electrification, hydrogen and hydrogen electric powertrains.

"We looked at multiple opportunities," he says, adding: "While we think there are definitely opportunities there, we felt that SAF will play the biggest role, certainly in the next 10-15 years."

He says Willis differentiates itself from other public companies by keeping a focus on the long-term. "We wanted to look at where the industry will be in five, 10, 20 years and how we can play a role not just as a lessor but as a partner. We have always been an industry leader, the first independent engine lessor to vertically integrate, the first to offer comprehensive programmes, and now the first to make a meaningful effort to help aviation decarbonise."

Although in the nascent stage of development for commercial use, WLFC has taken the view that PtL SAF, which utilises waste CO2 and green hydrogen as primary feedstocks, offers the most promising potential for scalability within the aviation sustainable fuel share.

While other SAFs such as HEFA and alcohol-to-jet may offer better shorter-term returns, feedstock limitations and restrictions on crop-based ethanol will make them more restrictive in the long-term.

"What we thought made the most sense long-term is PtL, where the feedstock is potentially unlimited, however the market and technology is changing quickly and we are always open to paradigm changes" Willis says.

"PtL is currently the most expensive on a per-litre basis, partially because the capital expenditure to establish a new plant is significant, and the electricity required to support it is substantial, but we felt over time that it would come down as more plants come online. And as more renewable infrastructure is developed, the cost of renewable energy should also come down."

The first-of-its-kind plant in the region is expected to produce a volume of approximately 50,000 litres per day from 2026. "We wanted to develop the smallest plant we could that could also be economically viable."

"PtL requires a huge amount of electricity and by going for a big plant right out of the gate you reduce the number of locations where you will have sufficient renewable energy supply," he explains, particularly accounting for additionality for projects to qualify as a carbon offset.

De-risking

One of the biggest hurdles to getting new projects on line, particularly PtL, are financing constraints. Investors want to ensure that all possible risks have been mitigated to every extent possible. That includes offtake credit risk, project risk, technology risk and policy risk, Willis says.

“At the end of the day, getting these projects financed is all about de-risking them, and one of the key elements of de-risking is having a strong offtake agreement with a creditworthy third party,” Willis says.

He notes there are a “variety of different investor types” for project financing, including traditional financiers, investors with a green mandate and the strategic investors that are stakeholders in the plant itself. “Ultimately though, we intend to be the anchor investor for the projects we develop.”

He notes that one of the limitations in the USA is long-term policy stability. “That being said, the US is offering very lucrative incentives to get things done. If you can get a plant online quickly with lower capex, then perhaps that risk is more manageable.”

Willis argues that everyone who participates in and benefits from the industry will have to play a role in decarbonisation going forward.

“We have been aggressive in trying to be forward looking and drive change ourselves. It may not be the right approach for all lessors, but I encourage other lessors to try to link up with parties that are doing that.

“Financing will play a big role, especially for first-of-kind plants that will be needed to drive innovation. I would encourage them to seek those out and be bold and collaborative,” he concludes.

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