

Meet the Aussie poised to create the first hydrogen-powered airline

Lucas Baird *Reporter*



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Aviation may as well be in John Thomas' blood. The former Virgin Australia executive – and heir apparent to former chief John Borghetti until falling out with the board – got a pilot's licence before his 18th birthday, and two years later started a regional airline in home town Wagga Wagga.

Forty years on, it is a time Thomas recalls fondly and in immense detail.



John Thomas' Connect Airlines agreed with green group Universal Hydrogen to buy 24 of its green hydrogen conversion kits in 2025 to turn the US-based airline almost entirely carbon-neutral. **Anna Kucera**

“But in 1982 we had to make a decision,” he says. “In the old days, you could operate these aircraft with just one pilot, and they changed the regulations so that you needed two pilots – and that pretty much killed the economics.

“We made a graceful exit,” Thomas says with a laugh.

Now, he has returned to his regional roots with a new airline in the US – one that boldly plans to not only bring turboprop planes back to the jet-dominated market, but also become the world’s first hydrogen-powered carrier.

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If successful, it could revolutionise an industry that has struggled to arrest its carbon emissions amid increasing scrutiny and warnings that some airlines could go broke if they are unable to address the issue soon enough.

Connect Airlines, pending regulatory approvals, plans to start flying with Dash 8 turboprop aircraft – already less carbon-intensive than normal jets – on shorter routes before the end of May.

Last December, Connect agreed with green group Universal Hydrogen to buy 24 of its green hydrogen conversion kits in 2025 to turn the airline almost entirely carbon-neutral.

Universal Hydrogen too has an Australian connection as its hydrogen supply will come from Andrew Forrest's Fortescue Future Industries.

Thomas – Connect's chief executive – reckons the cost of the conversions will be about \$US200 million.

"There is a market segment on routes shorter than 700 kilometres that are poorly served today by regional jets, and we think there is an opportunity to fly them with better economics and be better for the environment," he says.

Thomas says the market opportunity for Connect existed even without the hydrogen focus, but credits a chance conversation in his role as a director of Icelandair for contributing that "icing on the cake".

"It was a bit of a stroke of luck," he says. "I was at an Iceland airport talking to our COO, and he was talking to me about a strategic partnership that he had just signed with Universal Hydrogen."

"When I heard their story and what they were trying to do with turboprops, I could see this was the most practical and fastest route to the market in actually going to zero emissions. With all the noise out there, all the smoke and mirrors, this was the one company that I thought had a credible story."

Still, the idea that hydrogen-powered aviation is possible in the near term runs counter to the accepted wisdom in the industry. Most of the focus from airlines is on biofuel-based solutions that are cut with regular jet kerosene.

Virgin Australia has run several trial flights with these types of fuels, while Qantas announced last month it had bought 10 million litres of biofuels from BP at Heathrow Airport to use on its flights from Britain in 2023 and 2024.

Qantas boss Alan Joyce even downplayed the hype behind hydrogen-based fuels last November.

"That [hydrogen] is a while away," he said. "You need something that works within the current distribution of fuel and aircraft, and hydrogen is going to take a lot of investment."

'10-year time frame' for hydrogen jets

Thomas points out that he is coming from a vastly different perspective to Qantas: Connect plans to operate smaller aircraft that are easier to adapt for hydrogen than the narrow-body and wide-body jets used on domestic and international flights.

He says Qantas needs to show the community and investors its commitment to reducing emissions, and therefore the mix of biofuel with kerosene is a good enough bridge until cleaner technologies such as hydrogen become viable.

“At the moment, this is the only mechanism that larger airlines have to show their commitment to lowering emissions,” Thomas says.

Nevertheless, he thinks hydrogen-powered narrow-body jets are closer than what Qantas thinks, as investors pour more money into the technology.

“It’s in the 10-year time frame,” he says.

But, for now, he hopes Connect will prove a disruptive force that shows the industry green aviation is possible.

“You’ve got to step outside the box ... not only from an economic standpoint but from an environmental standpoint, it’s worth the risk,” Thomas says.

Lucas Baird is a journalist based in The Australian Financial Review's Sydney office. *Connect with Lucas on [Twitter](#). Email Lucas at lucas.baird@afr.com*