

Embraer Offers Customers Carbon Credits As Part Of Sustainability Efforts

Molly McMillin May 22, 2022



Credit: Embraer

Embraer has partnered with 4AIR to offer buyers of Embraer business jets 25 hours of carbon neutral flight hours through carbon offset credits as part of its larger mission to reduce emissions.

Through 4Air, Embraer is offering the carbon offset program to customers at no charge when they take delivery of their aircraft in 2022 and sign up for Embraer's Executive Care program.

The offer, which offsets 100% carbon dioxide emissions through 4AIR's Level 1 or Bronze category, is part of Embraer's goal to achieve carbon neutral operations by 2040 and to support an industry goal to achieve net carbon emissions by 2050.

"Our partnership with 4AIR will incentivize business jet customers to make their own long-term commitment to sustainability and demonstrate ways they can start acting now, even as alternatives like SAF (sustainable aviation fuel) are not yet abundant and new technologies are still in development," says Johann Bordais, president and CEO of Embraer Services & Support.

Embraer pledged carbon neutral growth starting in 2022 through the adoption of sustainable aviation fuel in its production flights, delivery flights and demonstration flights and to have 100% of its energy coming from renewable sources, says Alvadi Serpa-Junior, Embraer director of product strategy.



It began using SAF and carbon offset credits through 4AIR in its own operations and saw an opportunity to use the program to incentivize customers to start thinking about sustainability and how they can start today.

Carbon offset credits, however, are a short-term rather than long-term solution, Serpa says. Embraer is working on sustainability goals through a number of activities.

It is working to modify aircraft to operate on 100% SAF, up from today's maximum allowance of a 50% blend. The target is to achieve the goal by 2030 when SAF becomes more readily available.

In addition, Embraer is working on new technologies, such as electric and hydrogen-powered aircraft. In 2021, it completed the first flight of an electric flight demonstrator, a converted Ipanema aircraft equipped with an electrical system. It also plans to add a fuel cell to the aircraft at a later date.

Embraer is investing heavily in what it calls Energia—the Portuguese word for energy—which includes a family of four aircraft projects now in concept form.

“They are concepts that will allow us to study different propulsion technologies using different sources of energy,” Serpa says.

First is a small, nine-seat 500-nm-range hybrid-electric aircraft, followed by a 200-nm aircraft with full electric propulsion. Next is a 90-seat aircraft powered by liquid hydrogen in the fuel cell followed by a 35-to-50-seat aircraft with a range of 350-500 nm capable of operating on hydrogen or sustainable aviation fuel, depending on the length of the trip.

“These are concepts,” Serpa says. “These are platforms for us to study the technology. If they prove to be promising, then we can go ahead and more heavily invest and develop them.”

Achieving the goal of carbon neutrality and net carbon emissions can only be achieved through a variety of initiatives, he says

“I think we are coming to the conclusion that there is not a silver bullet for this,” Serpa says. “It’s about exploring and developing different technologies. It is not a one-person job, but rather a team effort. It involves not only the industry, but also the manufacturers, the systems manufacturers, the operators and government, authorities and regulators.

It’s not an easy task, he says, “but my feeling is that it is something certainly achievable.”

Embraer is beginning to increase its use of SAF and is working to make its products 100%-compatible with the SAF. It also is researching and developing products, services and “disruptive sustainable technologies,” such as electrification, hybrid and other energy alternatives.

In the short term, Embraer is reducing emissions through the use of SAF and through its own agreement with 4AIR to use carbon offset credits for its operations.

“Then we saw an opportunity of using that program to incentivize our customers to start thinking about sustainability,” Serpa says. Carbon offsets are not a long-term solution, but it is a first step, he says.

“It is a good tool for us to start educating our customers about sustainability and how they can start doing something now ... in addition to sustainable aviation fuel,” he says. “So we’re pretty excited about it.”

The company will also be offsetting any residual emissions that cannot be reduced through efficiency projects, available alternative energy or advanced technology. Projects funded by 4AIR carbon offset credits include renewable energy programs, the enhancement of carbon-absorbing forests and the support of local projects that reduce deforestation.

Customers may opt to continue the program or increase their commitment to become emissions neutral by offsetting non-carbon climate-changing emissions, such as nitrous oxides or reducing emissions through operational changes or the use of SAF.

SUSTAINABILITY

