

VIDEO | ENVIRONMENT

Delta's ambitious carbon neutrality plan balances immediate actions and long-term investments on path to zero-impact aviation

Staff Writer | Mar 4, 2021 8:45am

IN SUMMARY



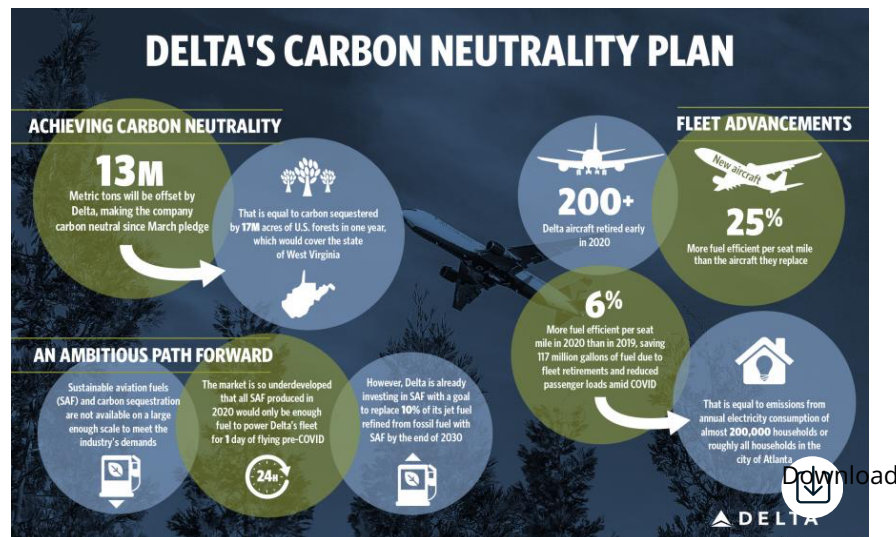
since March pledge

- **Planning long-term investments in sustainable fuel and carbon sequestration advancements and analyzing role of developing propulsion technologies**
- **Building coalitions and engaging stakeholders to broaden availability of sustainable aviation fuels, including first partnerships with NIKE, Inc. and Deloitte**

Delta Air Lines' audacious commitment to carbon neutrality from March 2020 onward is coming to fruition with swift impact through immediate actions coupled with long-term investments to combat climate change.

"Connecting the world and protecting our environment for future generations cannot be mutually exclusive," said Delta CEO Ed Bastian. "Travelers should not have to choose between seeing the world and saving the world. We must continue to take immediate actions today and can't wait for future solutions to become a reality. While there are many paths to carbon neutrality, Delta chose to make an impact today and invest in a future where aviation itself becomes cleaner for the world around us."

In the short term, Delta intends to achieve carbon neutrality by directly reducing emissions through fleet and operational efficiencies and addressing remaining emissions through carbon offset project investments that maintain, protect and expand forests. *See Delta's sustainability **glossary** for definitions of sustainability terms and details about Scope 1, 2 and 3 emissions.*



An ambitious path forward

Delta's vision is zero-impact aviation: air travel that does not damage the environment directly or indirectly via greenhouse gas emissions, noise, waste generation or other environmental impacts. Achieving this ambitious goal will require significant capital investment, support from government partners, research and development from manufacturers and evolution of some of the world's largest industries.

As Delta works to solve its largest impact on the environment—carbon dioxide emissions—it plans to invest in innovative solutions, like carbon capture and storage and sustainable aviation fuels (SAF). SAF and other advanced technologies are not available on a large enough scale to meet today's industry demands. The market is so underdeveloped that all SAF produced in 2020 would only power Delta's fleet for one day pre-COVID. This is why investments, guided by a strong long-term vision, are so critical.

Delta's holistic environmental sustainability plan remains focused on three areas:

1. Carbon reduction and removal
2. Stakeholder engagement
3. Coalition building

Carbon reduction and removal

In 2020, the company retired more than 200 older aircraft. The new aircraft replacing those planes are 25 percent more fuel efficient per seat mile than the aircraft they replace. Due to those fleet decisions and reduced passenger loads amid COVID-19, Delta's fleet was nearly six percent more fuel efficient per available seat mile in 2020 than in 2019, saving 117 million gallons of fuel. That is equal to the emissions from annual electricity consumption of almost 200,000 households, or roughly all households in the city of Atlanta.

Delta will invest in the acceleration of three promising advancements critical to a cleaner future of commercial aviation. While these technologies are nascent and very expensive today, Delta believes they have great future potential and are the first steps towards zero-impact aviation.

- **SAF** is an alternative to fossil fuel and can reduce emissions by up to 80 percent during its full lifecycle. Examples include bio-fuels and synthetic fuels. Delta's medium-term goal is to replace 10 percent of its jet fuel refined from fossil fuel with SAF by the end of 2030. The company has agreed to purchase a future supply of 70 million gallons of sustainable aviation fuel per year. That includes 10 million beginning in 2024 from **Gevo** and 60 million beginning in 2025 from **Northwest Advanced Bio-Fuels**, representing a projected 1.7 percent of Delta's total annual fuel consumption, adjusted for 2019 flying levels.

- **Carbon capture and storage technology** need to progress to serve the expected demand for carbon dioxide removal from the atmosphere, especially for hard-to-abate sectors like aviation. In the meantime, technologies like direct air capture have the potential to scale. Captured carbon can also be used to create fuels.
- **Innovations in propulsion, post-combustion emission controls, electric power delivery and fuel cells** would substantially address emissions but are far from commercial aviation applications. Beyond aircraft changes, significant investments in infrastructure, like clean energy and hydrogen fuel generation, would also be required for commercially viable solutions. Although these technologies are still in the early stages of development and are not expected to enter service anytime soon, Delta is evaluating partnerships to accelerate and support their advancement.

In the near-term, Delta will invest in verified carbon offsets to achieve carbon neutrality and ensure forests are maintained, protected and expanded.

“As Delta invests in future technologies, carbon offsets are a viable, proven and immediate way to make an impact today,” said Delta’s Sue Kolloru, V.P. – Strategic Corporate Initiatives. “Our offset projects are making a measurable and meaningful difference by protecting forests, conserving wildlife and helping communities develop around the world.”

In addition to exploring investments in SAF and research and development for new technologies, Delta plans to spend more than \$30 million to address 13 million metric tons of carbon dioxide emissions from March 1 to Dec. 31, 2020 through an offset portfolio. That is equal to the carbon sequestered by 17 million acres of U.S. forests in one year, enough to cover the state of West Virginia. A carbon offset is a verified, quantifiable emissions reduction as a result of an investment in a project designed to avoid, reduce or remove carbon dioxide from the atmosphere.

Two projects in Delta’s offset portfolio are Rimba Raya and Keo Seima, which protect forests through a community-driven conservation model involving local communities in Indonesia and Cambodia. These investments support the cost of running the programs and conserving more than half a million acres of forests while avoiding the release of an average of 5 million metric tons of carbon to the atmosphere per year. All of Delta’s offset projects are independently audited against leading, third-party standards.

“These Delta investments provide the necessary financial stability for projects to protect forests and their vast capacity to store carbon – the original technology provided by nature,” said Gerald Prolman, CEO of Everland LLC. “In addition, the projects promote sustainable livelihoods, conserve critically endangered species, support the preservation of indigenous communities’ culture and traditions, and maintain the natural resources on which forest communities depend.”

Delta’s goal is to have an offset portfolio that includes:

- **Carbon Avoidance Projects:** Deforestation contributes 10 to 15 percent of carbon emissions globally. These projects prevent deforestation to ensure that some of the world’s largest forests remain intact and continue to absorb and store carbon dioxide. Many of these projects are REDD+ (Reducing Emissions from Deforestation and forest Degradation) projects backed by a United Nations framework that aims to curb climate change.
- **Carbon Reduction Projects:** Investing in converting from emissions-intensive energy sources, like coal, to sources like wind and solar serves as a foundation for reducing emissions.
- **Carbon Removal Projects:** This refers to nature-based solutions such as afforestation and reforestation, where additional trees are planted or areas are restored in an effort to absorb additional carbon dioxide from the atmosphere.

Stakeholder Engagement

Delta seeks to engage investors, customers and employees on this journey toward zero-impact aviation. To ensure all stakeholders see the results of their engagement, the company is making transparency the cornerstone of its approach— which it intends to demonstrate through best-in-class reporting, collaboration across industries and fund management.

Delta has executed industry-leading SAF agreements with corporate customers to take collective action for the greater good of our planet. NIKE, Inc. and **Deloitte**, Delta's first and second corporate customers to purchase SAF facilitated by Delta, are supporting a future of more sustainable business travel.

Coalition Building

One company alone cannot solve this challenge, making partnerships critical. To broaden the availability of alternative fuels and carbon capture technology, Delta aims to build coalitions with suppliers and other industry participants to drive down the cost and increase the consumption and production of these transformative technologies.

"This is not a competition," said Bastian. "Uniting across industries to create a more sustainable future is imperative. The more that join us on this mission, the better."

Since last March, Delta has worked with leaders inside and outside the aviation sector to shape its plans and will announce multiple partnerships in the second quarter. One example is its membership in MIT's Industry Liaison Program, which has helped Delta understand and quantify aviation's environmental impacts and inform a long-term plan to support industry innovation.

"Delta's thoughtful approach to understanding the research ecosystem will help support research and development for the industry," said Steven Barrett, Head of MIT's Laboratory for Aviation and the Environment. "Developing coalitions to bring together leaders across industries is crucial in advancing a zero-impact future."

From being the first and only U.S. airline to voluntarily cap greenhouse gas emissions at 2012 levels to last year's commitment to be the first carbon-neutral airline globally, Delta has a longstanding commitment to sustainable air travel. Delta was the No. 1 airline named among **America's Most Sustainable Companies by Barron's** in 2020, the only U.S. airline included in the 2021 S&P Global Sustainability Yearbook and has received the **Vision for America** Award by Keep America Beautiful and Captain Planet Foundation's **Superhero Corporate Award**. Delta has also earned a spot on the FTSE4Good Index for six consecutive years and the **Dow Jones Sustainability North America Index** for ten consecutive years.

HOW TO GET INVOLVED

Customers can learn more at [Delta.com/sustainability](https://delta.com/sustainability) or help offset the environmental impact of their flights by visiting delta.com/co2.

Forward Looking Statements

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