



Environment

Progress, action, impact

BOMBARDIER

INTRODUCTION



“Reducing our environmental footprint and being a leader in sustainable aviation are of the utmost importance at Bombardier. How we deliver results is just as important as what we achieve.”

ÉRIC MARTEL
President and Chief Executive Officer

Our vision

Bombardier supports a respectful approach to environmental challenges; we undertake initiatives to promote greater environmental responsibility; and we invest in the development and diffusion of environmentally friendly technologies. Continual innovation is helping us develop effective solutions to minimize the environmental impacts of our products, services, and operations.

We are constantly improving the environmental performance of our manufacturing, servicing activities, and products across our value chain; and set ambitious goals to reduce carbon emissions, energy consumption and waste generation.

Through our preventive and continuous improvement mindset, we continue to maintain our eligible sites' ISO 14001 environmental management system certifications, making sure environmental risks and impacts are identified, effectively managed, and reduced.

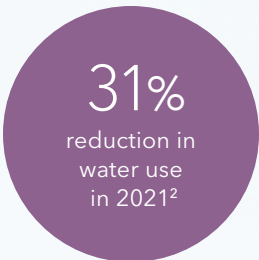
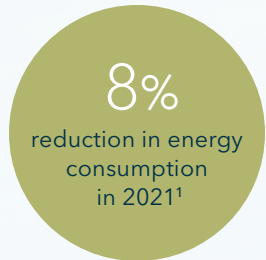
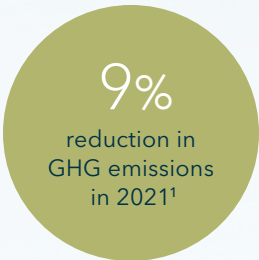
Bombardier is actively forging a path towards a cohesive sustainable future.

We are avid users of Sustainable Aviation Fuel, SAF. Regular delivery to our Montreal facility positions us as the only location in Canada where SAF can be consistently uplifted.

Bombardier aircraft lead the way with Environmental Product Declarations (EPDs). The results of these analyses enable Bombardier to define robust environmental requirements and performance parameters for future products.

Since 2008, Bombardier has led the development of the Business Aviation Commitment to Climate Change. We continue advocating on the entire sector's behalf at leading industry associations through our dedicated and experienced team devoted to sustainability, SAF, and industry affairs.

We are continually investing in new facilities and equipment to improve energy efficiency. The new *Global* aircraft manufacturing centre at Toronto Pearson International Airport, and upgraded MRO service centres at Singapore Seletar (XSP, WSSL), and London Biggin Hill (BGH, EGKB), are all designed to support the reduction of GHG emissions.



1. Compared to 2019 2. Compared to 2020

INCREASING SAF UPLIFT

Bombardier aircraft are certified to use up to 50% SAF to encourage customer adoption.

As SAF is available now, it is the most powerful tool civil aviation can optimize to achieve carbon emissions reduction. Produced from sustainable feedstocks derived from seven approved sources, the synthesized agents are blended with kerosene to create SAF, making it as safe to power a jet, as Jet-A/A1. Uplifting SAF for a flight can contribute up to an 80% reduction in carbon emissions through the fuel life cycle when compared with conventional fuel*.

Since 2017, SAF has powered Bombardier demonstration flights, executive travel, sustainable fly-ins to major aviation events, and customer aircraft deliveries.

Global and *Challenger* business jets delivered from Montreal are regularly fueled with SAF. In 2021, we fueled our *Challenger 3500* and *Global 7500* aircraft with SAF for an extensive European tour.

We support industry adoption of the innovative Book & Claim tool. "Purchaser A" buys SAF not physically available at a preferred location, but is consumed somewhere else. "Purchaser A" realizes the environmental benefit associated with SAF, without uplifting the fuel.



SAF is made by blending conventional fossil-based kerosene with renewable hydrocarbon. This is certified as Jet-A/A1 fuel and can be used without any technical modifications to the aircraft.

Air Transport Action Group



Global 7500 uplifting SAF at Schiphol Airport, Amsterdam

*www.bp.com - Air BP

Bombardier is raising sustainability standards by designing and manufacturing aircraft forever challenging existing processes and limitations.

Bombardier is the only civil aircraft manufacturer to have developed two business jets and two commercial airliners with internationally recognized Environmental Product Declarations. Each EPD is a transparent report which quantifies aircraft materials, and their environmental impact, from sourcing to recyclability.

The flagship *Global 7500* holds the first independently verified EPD in the business aviation sector, and the *Challenger 3500* aircraft confirmed publication of our second business jet EPD in May 2022.



Bombardier product innovation life cycle thinking is an integrated feature of the design process, highlighting the significance of different design options, and the subsequent true overall environmental impact these options offer.

Design and technology

Bombardier R&D is shaping future sustainable aircraft by combining leading edge aerodynamics, lightweight structures, and highly efficient systems, with advanced engine technologies.

The 2022 introduction of our EcoJet concept allows feasibility testing of new ideas that could reduce the environmental footprint of future technologies. We are maximizing our engineering heritage by collaborating with Canadian universities and industry members to explore modelling, building, and testing of the possibilities for environmentally friendly, future aircraft.

Debate and discussion drive environmental initiatives, which is why Bombardier engages with leading industry groups.

Bombardier is an active member of two key industry coalitions, the SAF Coalition for Business Aviation, and the Air Transport Action Group (ATAG). Each is dedicated to reducing the global carbon footprint of civil aviation.

The SAF Coalition, initiated by Bombardier, is an independent alliance that uniquely brings the business aviation supply chain together to tackle the challenge of sourcing, delivering and uplifting SAF. Bombardier has also been actively engaged with ATAG since 2007, and contributes to many ATAG initiatives, and recommendations.

Bombardier participates in numerous international and Canadian organizations and committees, including IAEG, IBAC, ICCAIA, GAMA, NATA as well as Aéro Montreal, AIAC and C-SAF. Bombardier contributes to international aviation environmental policy and standards by participating in six working groups at the ICAO Committee on Aviation Environmental Protection (CAEP).

Bombardier is an integral part of the business aviation landscape, and our work with regulators like TCCA, FAA and EASA constructively contributes to regulatory change.

“It is a privilege to participate in ICAO CAEP discussions regarding the industry’s environmental objectives, supporting policy development and the adoption of new Standards and Recommended Practices. The opportunity to share information, opinions, and perspectives helps improve future regulations, as well as guide civil aviation towards global sustainability.”

MARK HUISING, Vice-Chair ICCAIA Aircraft Noise and Emissions Committee;
and Senior Technical Expert, Engineering at Bombardier



Bombardier EcoJet concept



The sustainability imperative is stimulating unprecedented efforts toward reducing GHG emissions, forming foundations for a carbon neutral future. Bombardier is steadfast in supporting these aspirational goals.

In 2021, we established a plan featuring yearly reduction targets until 2025, by implementing specific initiatives across our company sites:

- 25% reduction in greenhouse gas emissions by 2025, relative to 2019
- 20% reduction in energy consumption by 2025, relative to 2019
- 20% reduction in hazardous waste by 2025, relative to 2019
- 5% reduction in total waste by 2025, relative to 2019

We continue maximizing the use of SAF in Bombardier flight operations, as well as optimizing carbon offsetting plans and Book & Claim opportunities.

We will continue designing efficient products with sustainable materials, and establish environmental requirements as EPDs for new, and in-production aircraft, are developed.

At Bombardier we accept our responsibility to steer towards a carbon neutral future. Every day we ask ourselves, "What can we do better to ensure a sustainable future?"

BY 2025 WE ARE AIMING TO...

REDUCE
ENERGY
CONSUMPTION

by 20% compared
to 2019

COMMIT
50% OF R&D
INVESTMENTS

toward greener
aircraft

REDUCE
GHG
EMISSIONS

by 25% compared
to 2019

Headquartered in Montreal, Canada, Bombardier employs approximately 13,800 people in the United States and Canada, as well as in the United Kingdom, Germany, Austria, France, Italy, Switzerland, China, Singapore, United Arab Emirates and in Australia starting in 2022. Design, aerostructure, assembly, completion and service facilities operate in Canada, the United States and Mexico.

Bombardier's industry-leading line of business jets allows customers and operators to efficiently meet their evolving business and travel needs. The large-cabin, long-range *Global* line of business jets, includes the industry flagship *Global 7500*. Bombardier's bestselling *Challenger* family of business jets, includes the new *Challenger 3500* business jet which, featuring innovative design, advanced technologies, and sustainable cabin materials, is testament to Bombardier's sustainability commitment.

www.bombardier.com

Use this QR code to access the 2021 Bombardier
Environmental, social and governance report:

[www.bombardier.com/en/system/files?file=2022-05/
Bombardier-ESG-Report-2021.pdf](http://www.bombardier.com/en/system/files?file=2022-05/Bombardier-ESG-Report-2021.pdf)

Bombardier and Sustainability
www.bombardier.com/en/sustainability

SAF Coalition
www.futureofsustainablefuel.com/guide



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