## 2023 Boeing Sustainability Report

Contents

Introduction

Approach & Governance

People

## **Products & Services**

Global Aerospace Safety

Sustainable Product Life Cycle

Innovation and Clean Technology

Fleet Renewal

Operational Efficiency

Renewable Energy

Advanced Technology

Partnerships

Operations

Communities

Reporting

## Fleet Renewal

New airplanes provide significant efficiency gains — historically each generation reduces fuel use and emissions 15%-25%. Deploying the latest generation of airplanes is one of the most significant contributions to  $\mathrm{CO}_2$  emissions reduction available over the next decade. Boeing will continue to invest in efficiencies that reduce fuel use and carbon emissions. More detail on the sustainability of Boeing's products can be found here.





## New orders mean more efficient fleets

**774 big things:** In 2022, our customers ordered 774 new commercial aircraft. New airplanes provide significant efficiency gains — each generation has reduced fuel use and emissions by 15%-25%.

**Why it matters:** Deploying the latest generation of airplanes is one of the most significant contributions to reducing carbon emissions available over the next decade.

**Research matters:** The emissions reductions available today in our latest generation of aircraft are a direct result of Boeing committing a significant amount of its research and development investment to sustainable technologies, such as:

- The Advanced Technology Winglet on the 737 MAX that reduces drag and increases lift.
- Lightweight carbon-fiber composite material on the 787 that is 30% lighter than aluminum.
- Folding wingtips on the 777X that offer unconstrained wingspan and contribute to 5% greater aerodynamic efficiency.

Go deeper: Read about our orders and deliveries here.

"With this investment in its future fleet, the 737 MAX and 787 will help United accelerate its fleet modernization and global growth strategy. The Boeing team is honored by United's trust in our family of airplanes to connect people and transport cargo around the world for decades to come."

Stan Deal, president and CEO of Boeing Commercial Airplanes