

Australia & New Zealand Airlines Emissions Report

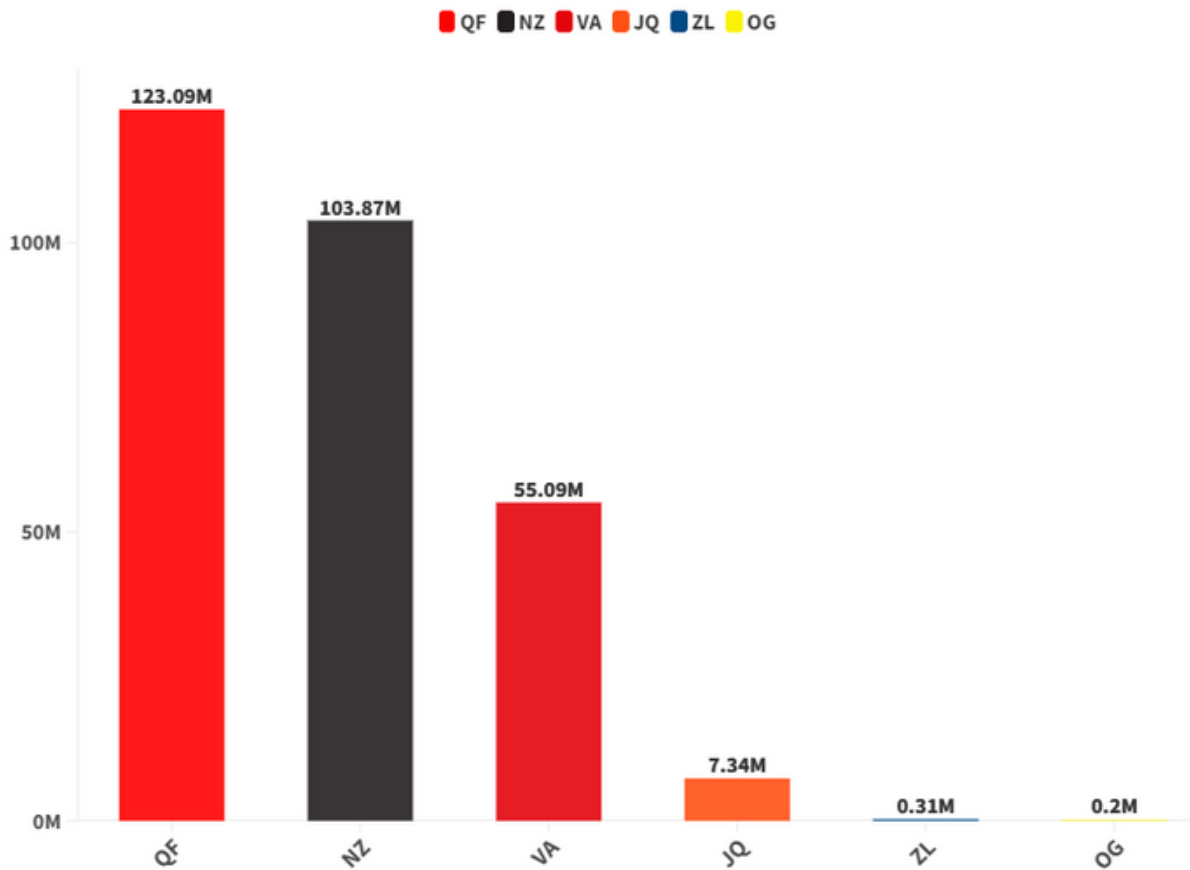
Greenhouse gas emissions have hit unprecedented levels, significantly worsening global warming. It's clear that the time for debate is over, and the focus must now be on how quickly and innovatively we can tackle this issue together. Amidst growing global concerns, the aviation sector has ambitiously committed to achieving net-zero emissions by 2050. This commitment requires a shift from traditional practices to the adoption of cleaner, sustainable technologies and the formation of strategic partnerships, marking the beginning of a new era in aviation

The CO₂ equivalent emissions of the Australian aviation sector surged from over 10 million tons in 2002-03 to surpass 23 million tons in 2018-19, reaching a pre-pandemic peak. Australia aims to cut greenhouse gas emissions by 43% below 2005 levels by 2030, aligning to achieve net-zero emissions by 2050.

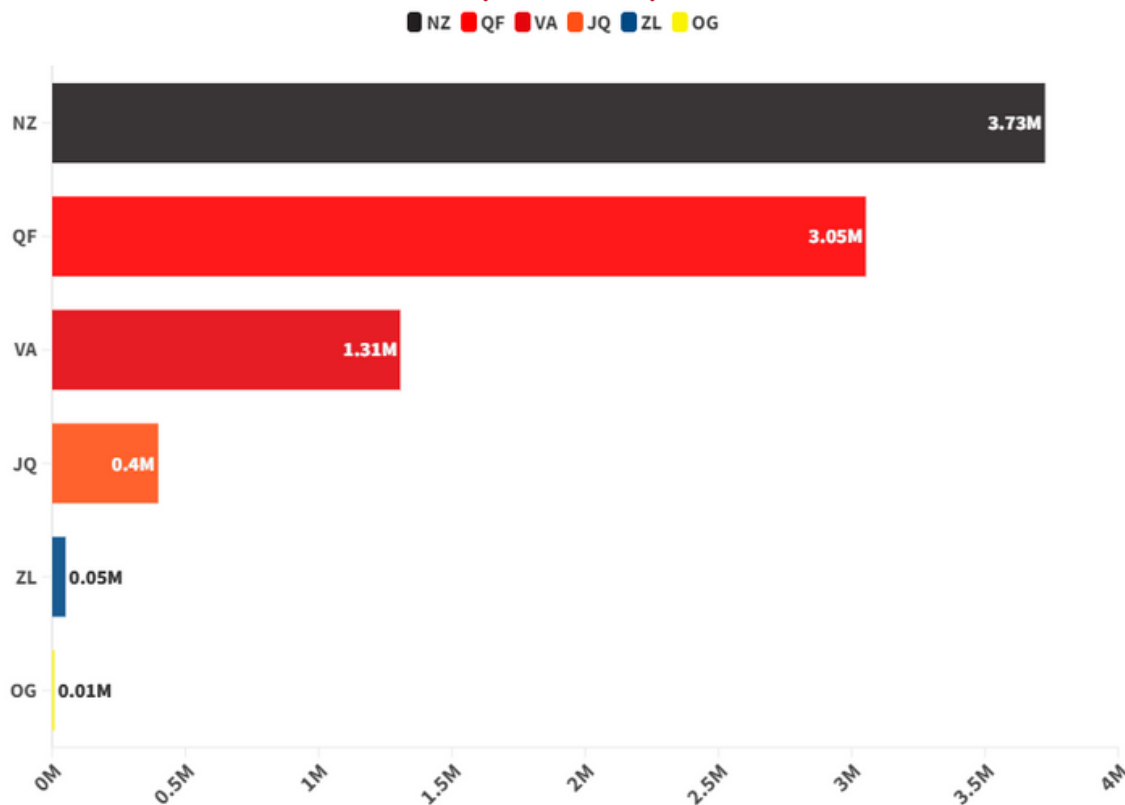
Aviation emissions rose 116% in New Zealand from 1990 to 2019, reaching 4.9 million tons of CO₂, with international emissions tripling. Aviation's share of total CO₂ emissions in New Zealand climbed from 8% to 12%, significantly exceeding the global average increase from 2.3% to 2.8%.

Our algorithms and AI-driven tools present a comprehensive overview of the performance of Airlines in Australia and New Zealand. from January 2019 to December 2023, covering aggregate emissions, total flight numbers, and cumulative emissions from diverse aircraft types.

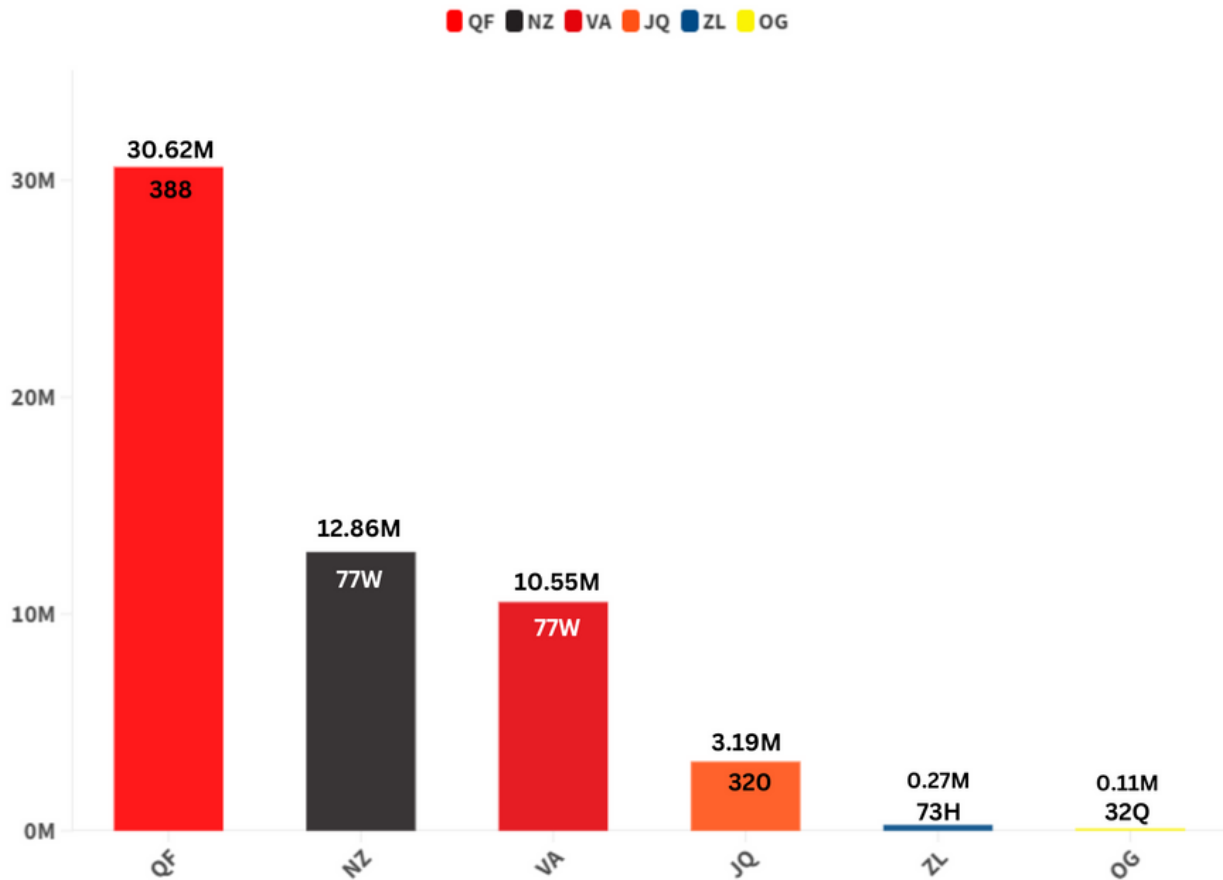
Top 6 Airlines by CO₂ Emissions from Jan 2019 - Dec 2023 (In Million Tons)



Airlines by Total Flight Count from Jan 2019 - Dec 2023 (In Millions)



Top Emission-Producing Aircraft Types by Airline from Jan 2019 - Dec 2023 (In Million Tons)

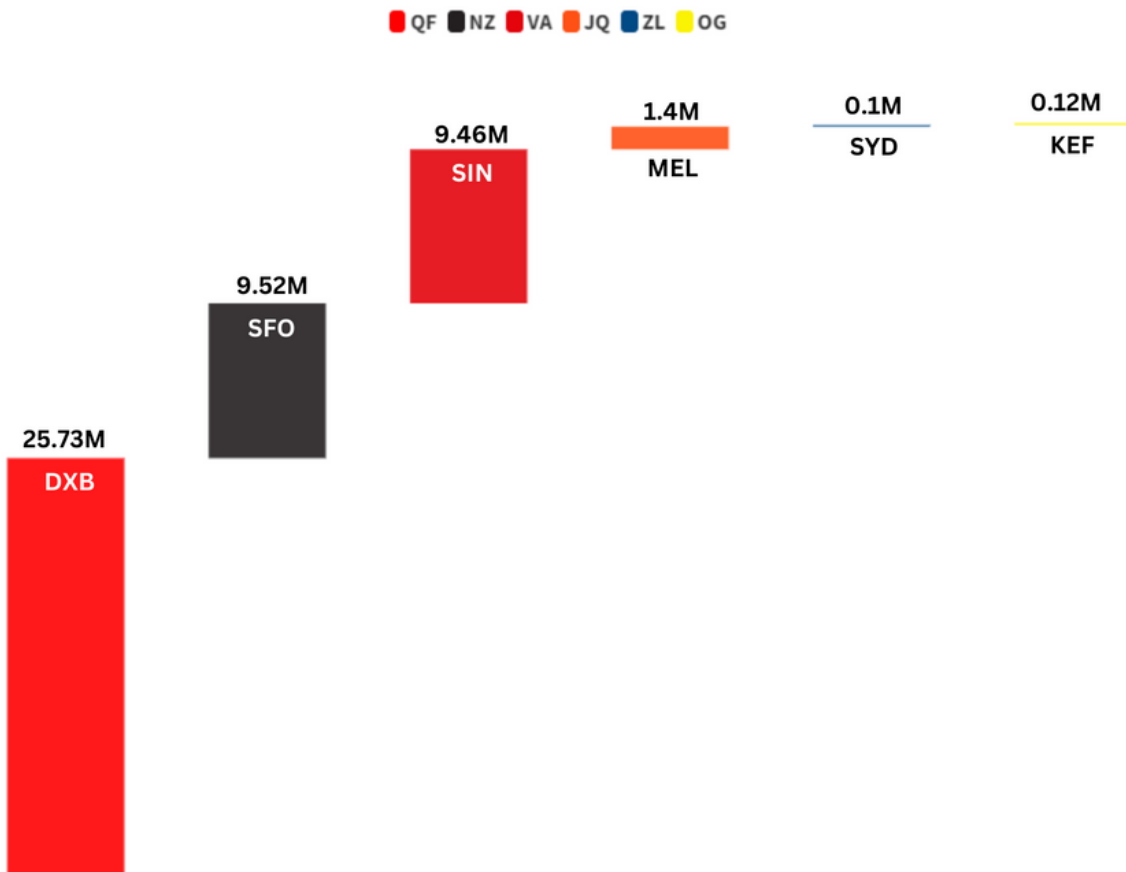


The overview indicates a significant relationship between airlines, aircraft choices, and resultant CO₂ emissions. Specifically, Qantas (QF) and Air New Zealand (NZ) are notable contributors, with QF's 388 and NZ's 77W aircraft types playing key roles, emphasizing the need for focused strategies to tackle emissions from these Airlines.

Highlighting Emissions Hotspots: Airlines and Their Key Departure Airports

Below is the graph highlighting the key departure airports and their corresponding emissions for each airline.

Emissions by Airports and Airlines from Jan 2019 - Dec 2023 (In Million Tons)

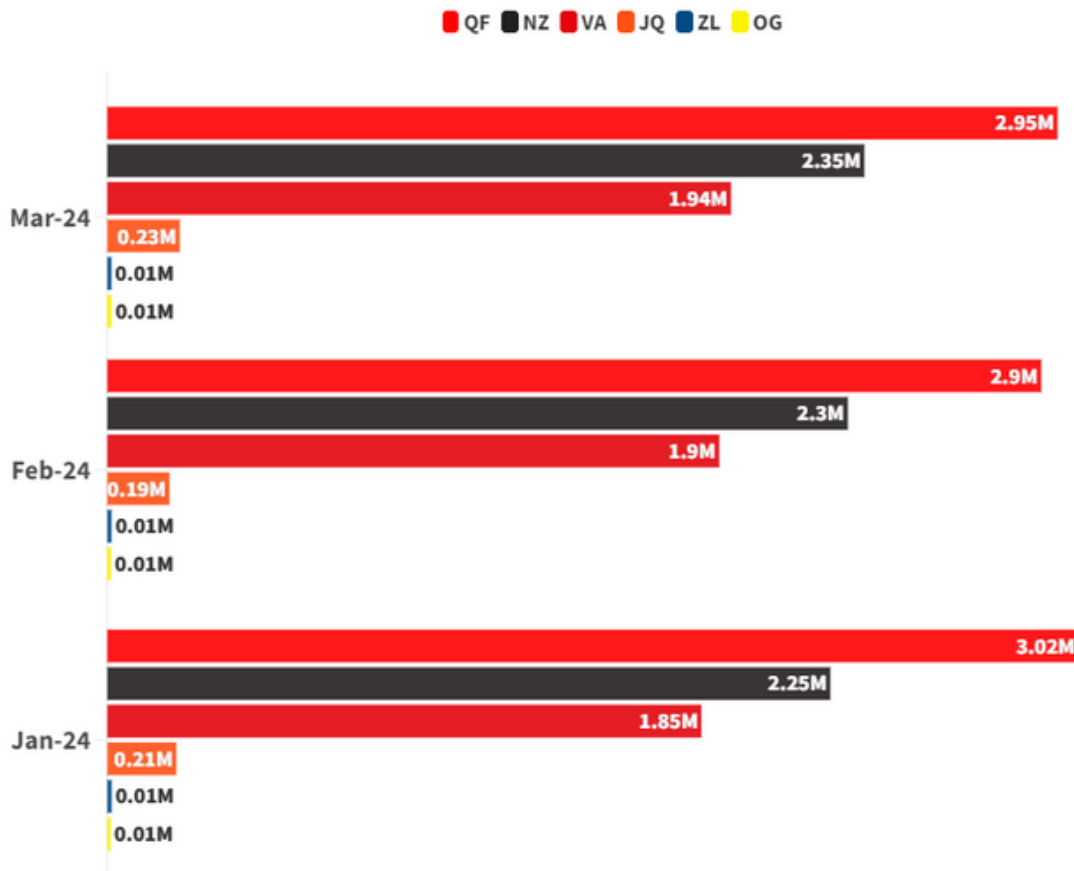


There are variations in emissions hotspots across airlines. Dubai International Airport (DXB) stands out as the leading departure hub, contributing the highest emissions, particularly driven by Qantas (QF). This underscores Dubai International Airport (DXB) as the second busiest international airport in 2023, reinforcing its prominent position in global air traffic.

Airlines Emissions Prediction

The following graph provides a comprehensive insight into the emissions prediction for major airlines in Australia and New Zealand offering a glimpse into the anticipated carbon footprint from January to March 2024

**Predicted Emissions from Jan to Mar 2024
(In Million Tons)**



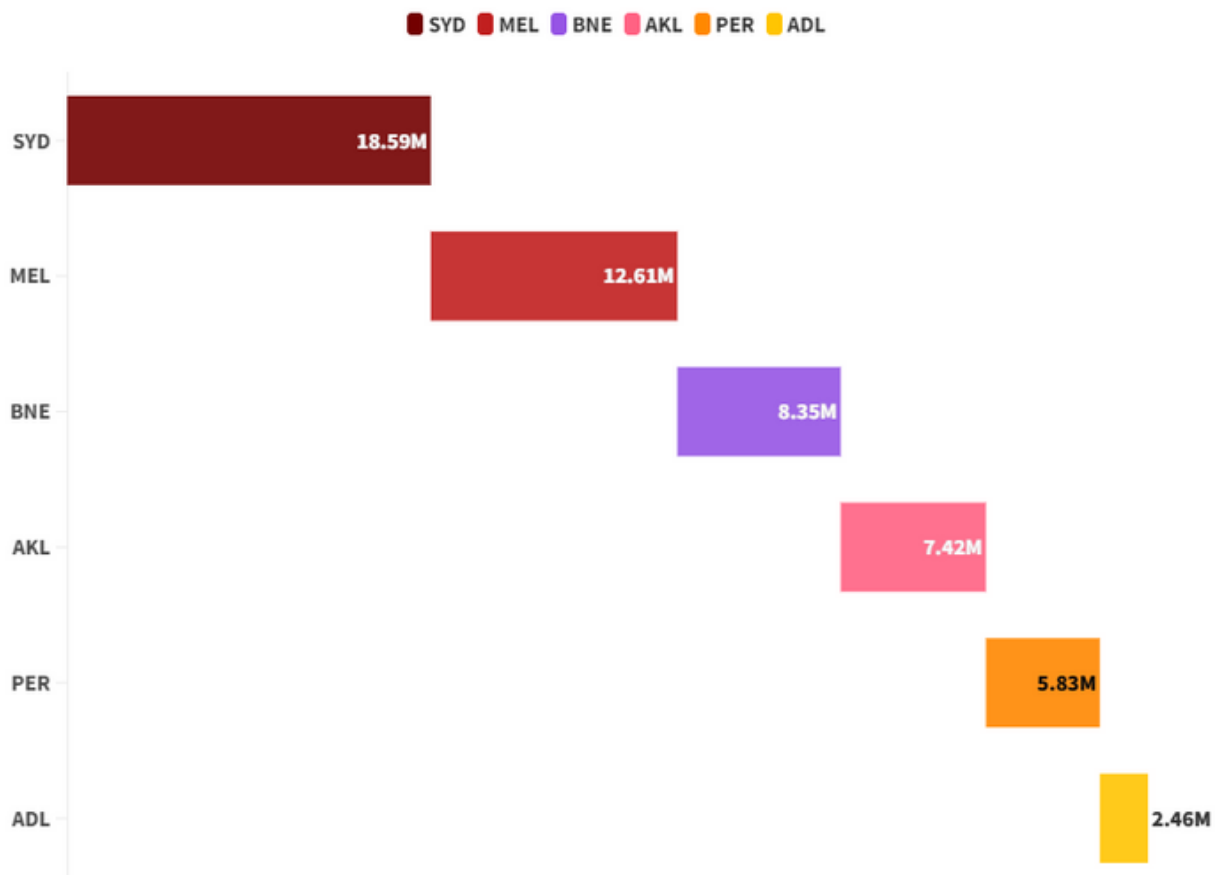
Based on our predicted data, it is evident the emissions for Airlines in Australia and New Zealand are on an upward trajectory. This calls for a heightened focus on implementing and accelerating emissions reduction strategies to address the industry's environmental impact and move towards a more sustainable aviation future.

Airports in Australia & New Zealand

Airports play an important role in the current landscape of emissions in Australia and New Zealand. To achieve the greater goal of the Aviation industry, to achieve net-zero emissions by 2050, demands a comprehensive transformation of airports, from converting ground fleets to electric vehicles (EVs) and electrifying building systems to on-site renewable energy generation and significant enhancements in energy and water efficiency, including innovative water reuse initiatives.

The current trends in airports' emissions are given below:

Emissions by Australia and New Zealand Airports- Top 6 from Jan 2019 - Dec 2023 (In Million Tons)



Emissions by Routes - Top 10 from Jan 2019 - Dec 2023 (In Million Tons)

DEPARTURE AIRPORT	ARRIVAL AIRPORT	ESTIMATED CO ₂ IN MILLION TONS
LAX	SYD	1.67 M
SYD	LAX	1.57 M
SYD	DXB	1.56 M
DXB	SYD	1.47 M
SYD	MEL	1.34 M
SYD	PER	1.34 M
SIN	SYD	1.31 M
SYD	SIN	1.31 M
MEL	SIN	1.28 M
MEL	SYD	1.22 M

The data highlights Sydney Airport's (SYD) significant role in air traffic emissions, with frequent routes involving SYD showing substantial carbon output. Flights to Los Angeles International Airport (LAX) and Dubai International Airport (DXB) demonstrate particularly high emissions, emphasizing the environmental impact of long-haul travel. Additionally, routes between Melbourne (MEL) and Singapore (SIN) also contribute significantly to carbon emissions, underlining the environmental consequences of air travel within the Asia-Pacific region.

As we witness an unprecedented rise in greenhouse gas emissions and the consequential escalation of global warming, the urgency to act has never been more apparent. Now is the time to accelerate sustainable practices, embrace cleaner technologies, and forge partnerships to mitigate the environmental impact of air travel and secure a healthier future for our planet.