



Flight NZ0 Zero Emissions Aircraft Project

The Future of Air Travel












Flight NZO

Decarbonisation Roadmap to 2050



The Challenge: Air New Zealand committed to **net zero carbon emissions by 2050**, and has a 2030 reduction target of 28.9% from a 2019 baseline

Flight NZ0 Decarbonisation roadmap

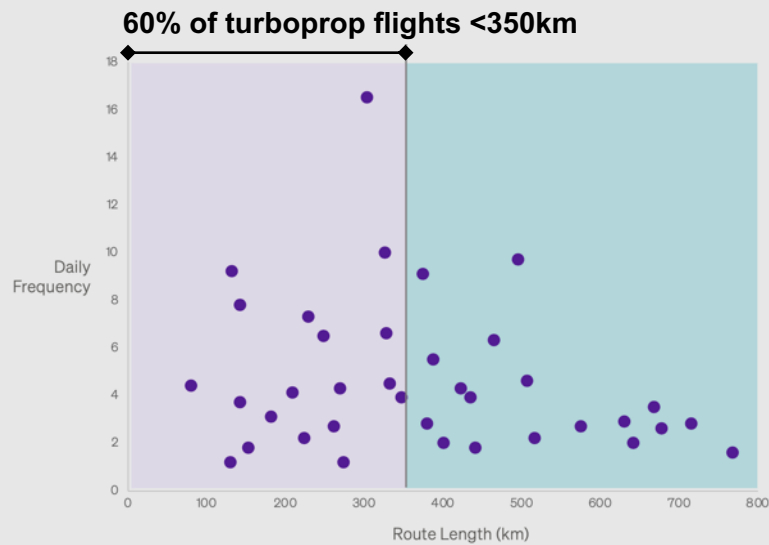
	Sustainable Aviation Fuel	Next Generation Aircraft (NGA)	Fleet Renewal	Operational Efficiency	Carbon Removals
Description	 Non-fossil derived jet fuel, carbon reduction potential ~ 83%, compatible with existing aircraft without modification	 Future hydrogen or battery or hybrid aircraft technologies	 Rollover current fleet to new jets that achieve greater fuel efficiency	 Optimising carbon efficiency from flight and ground operations	 Credible carbon removal solutions aligned to international best practice
Decarbonisation Potential by 2050	 50%	 20%	 20%	 <2%	<i>Residual</i>

 Requirement for Renewable Energy Generation for Aviation within New Zealand

The Opportunity: **New Zealand is ideally suited** to adopt zero emissions aircraft technologies and unlock new opportunities for economic growth



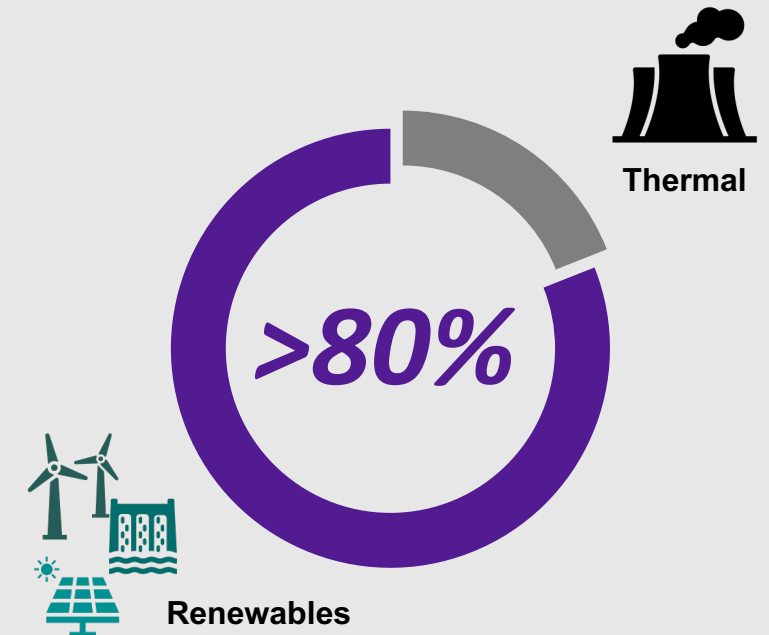
Ideally Suited Domestic Network for shorter range flights



Challenging long term mobility substitutes



Access to Renewable Energy

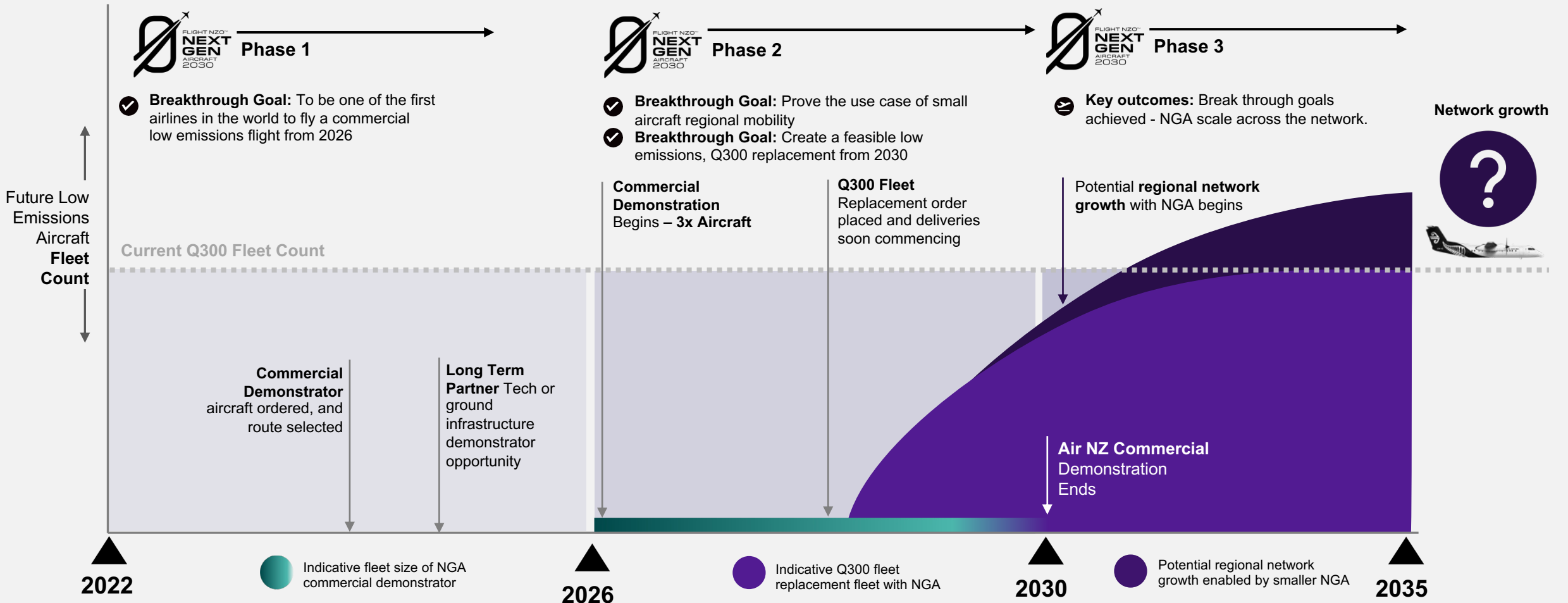


Enabled by aligned stakeholders across the private and public sector



Flight NZ0[✈]
**Next Generation
Aircraft Project**

The transition period proving the case for Next Generation Aircraft to replace the Q300 Fleet provides an opportunity for the regional network



Due to Next Generation Aircraft there are three main potential opportunities with the energy supply and distribution shift from aviation



Increase in national demand of renewable electricity
Multiple industries decarbonising in the future



Higher electricity demand drives upgrades to distribution network
Opportunities for communities and other businesses to access renewable energy



Potential creation of a new industry in Hydrogen production
Demand in trucking and heavy industries as well as long term aviation demand

Supply chain change from Aviation fuel to Battery electric or Hydrogen technology

