



**Emerging
Technologies
Programme**

Reduced & Zero Emissions Project (RZEP)

Coordinate CAA activities to create regulatory pathways that enable Reduced and Zero Emission Aircraft (RZEA) to enter and operate within the NZ aviation system.



Scope of regulatory considerations for RZEA:

- Initial airworthiness certification***
 - Pilot Training & Licencing***
 - Maintenance Training & Licencing & Continued airworthiness***
 - Operations***
 - Infrastructure***
 - Airspace***
 - General Operating Rules***
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- A decorative graphic on the right side of the slide, consisting of multiple parallel blue lines that curve and loop in a stylized, abstract pattern, resembling a stylized 'S' or a series of connected loops.

Technologies are 'baked into' existing rules

- *Engine, turbine, fuel*
 - *What about an Electric motor?*
 - *What about a motor powered by another source of energy?*
- *Aeroplane, helicopter*
 - *What about VTOL/Powered-Lift?*
- *SEIFR*
 - *What about a dual-wound electric motor?*
- *Rulemaking is a lengthy and resource intensive process*
 - *Is it possible to create a regulatory system that is agnostic of technology?*



Challenges for CAA

- *How to enable new technologies to enter the system safely?*
- *CAA NZ taking a new approach with its Emerging Technologies Unit*
 - *Collaboration*
 - *Project management, if complex*
- *ETU & Innovators separated from Regulators by “Chinese wall”*
- *Need to take Regulatory decision makers along on the journey*
- *Innovators handed off to Regulators when technology is sufficiently mature for certification.*

