

CLEARWINGS

New Energy Forum

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**A Climate-tech aviation startup that converts
existing airplanes to battery-electric**

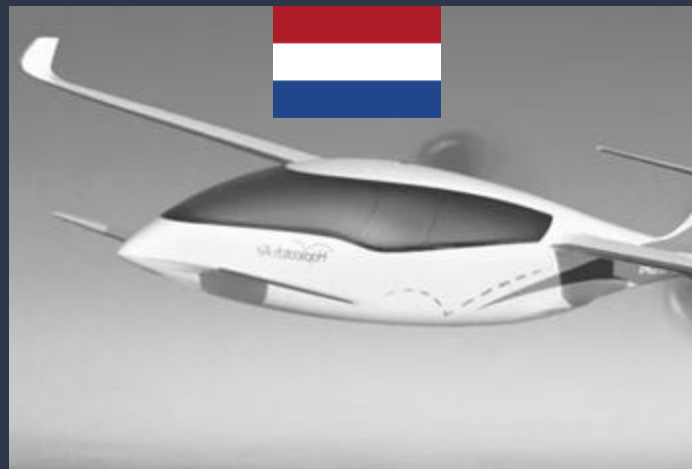


– MAKING AVIATION SUSTAINABLE, NOW

Can we fly electric?



Electric Aviation projects around the world



Aviation is Ripe for Retrofit Electrification

HIGH FUEL PRICES



CHEAP & CLEAN
ELECTRICITY

MAINTENANCE



REDUCED
MOVING
PARTS

NO E-PLANE SUPPLY



RETROFITTING
FASTER TO MARKET



CO2 emissions



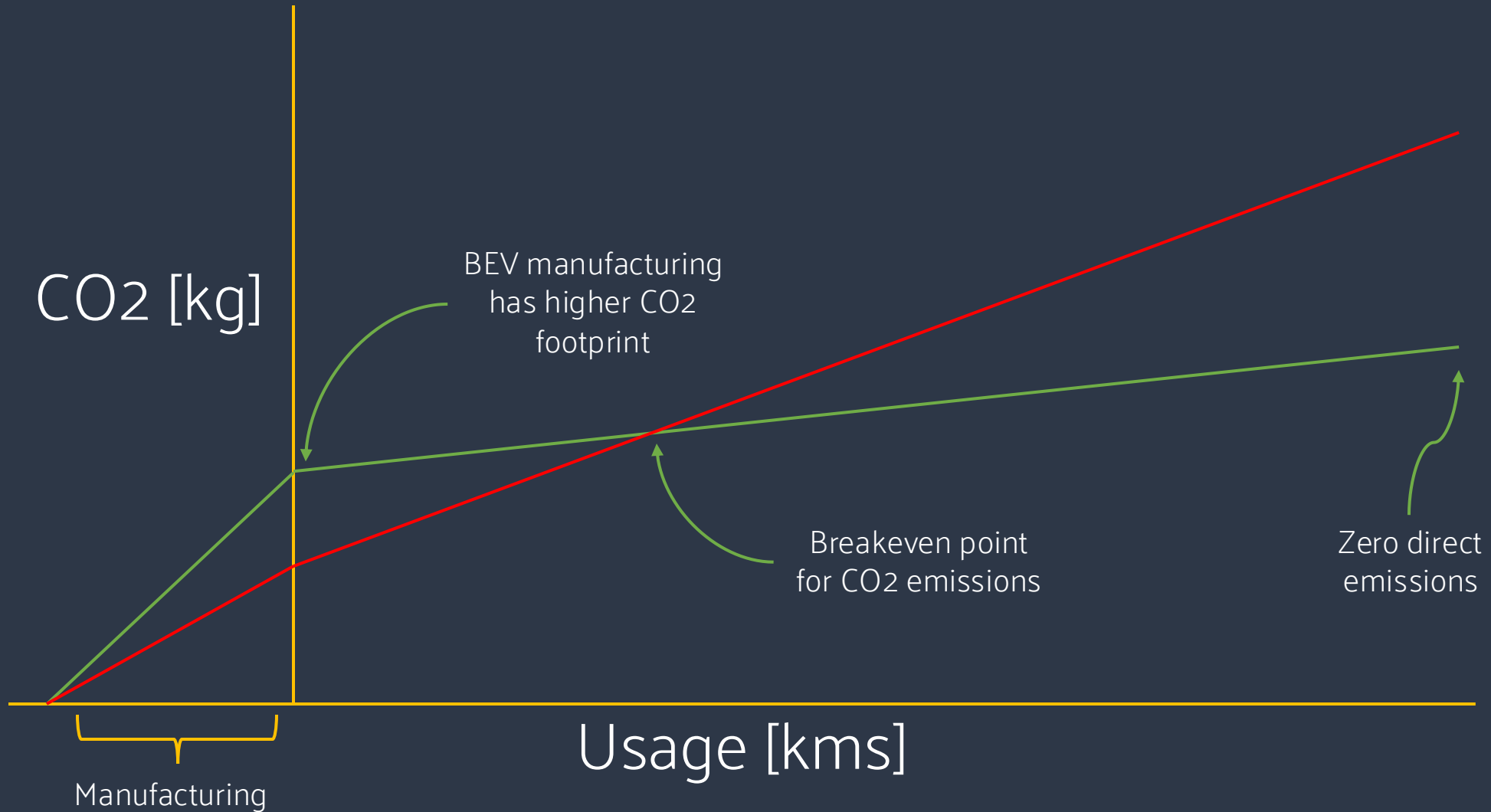
1kg of Aviation fuel



3,15 kg of CO2



More about CO2 emissions



What is retrofitting



Retrofit Kit Detail

Retrofit Kit Components, Integrated and Certified

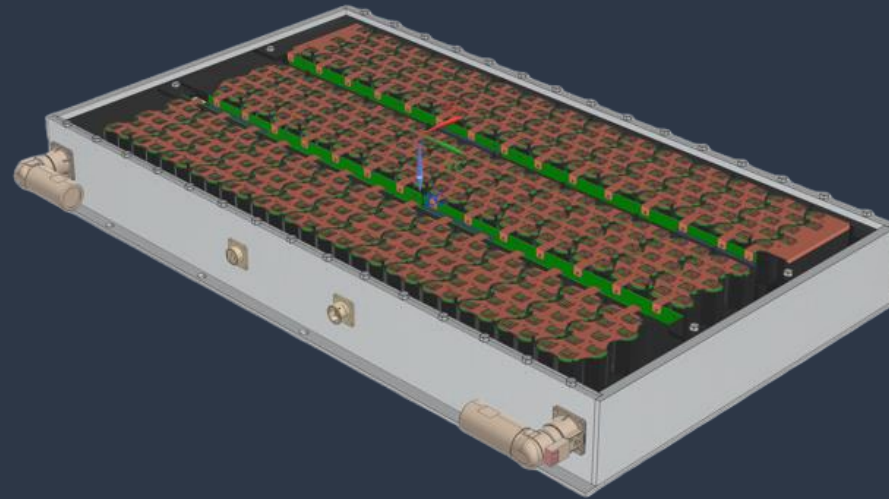
Power Plant

Motor and Inverter



Energy Storage

HV & LV battery



Avionics

Displays & controls



Engines v/s motors



100 kgs
100 BHP
75 kW
900-2700 RPM



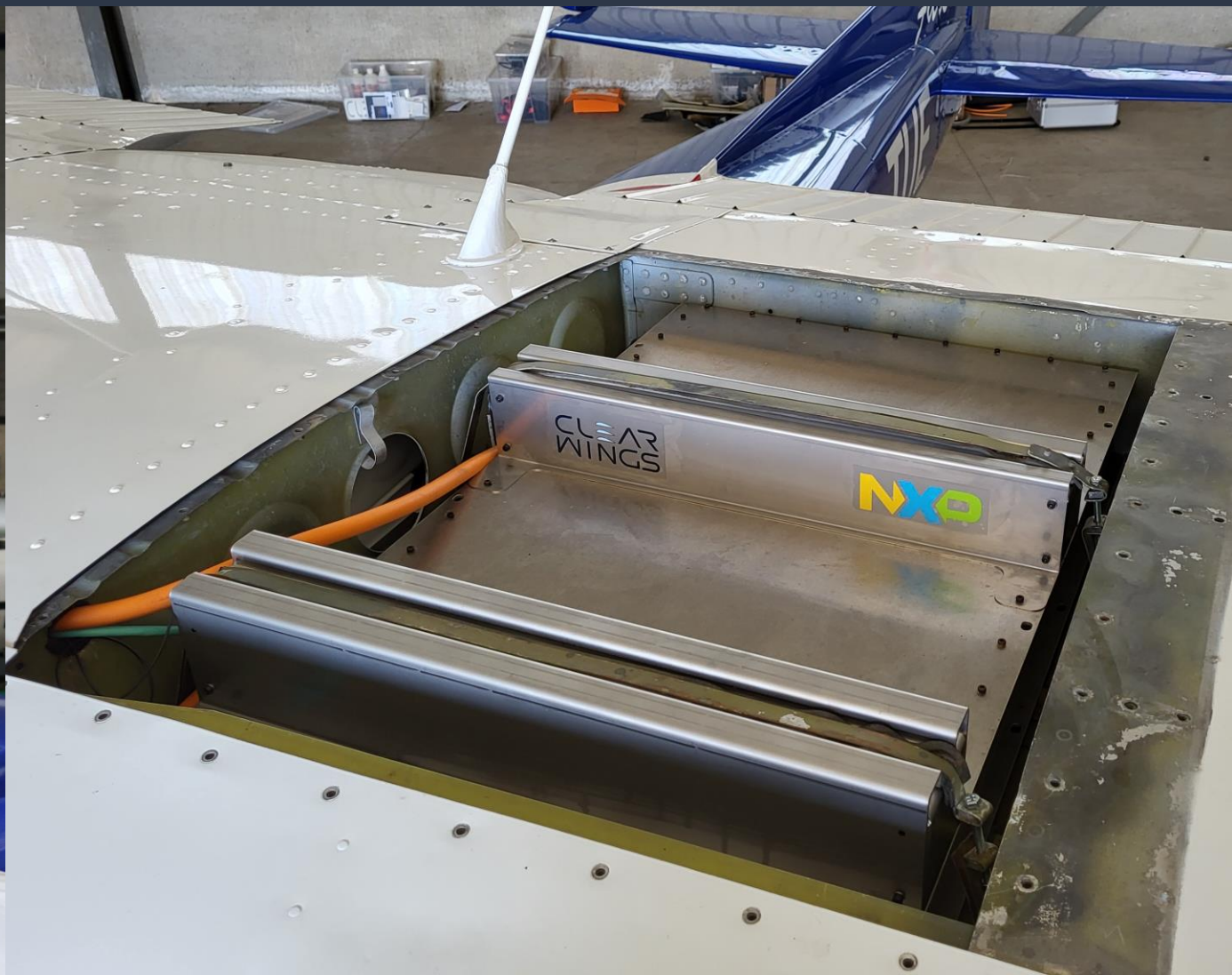
30 kgs
350BHP
200 kW
0-6000 RPM



Engines v/s motors



Fuel tank v/s batteries



Avionics



Project phases

Phase 1: Taxiing

December 2024
March 2025

Phase 2: Experimental flight

Q1 2026





PIATUS

NCTW000001
REGIO
CEMUNOORN

FEA 1

PH-TUE

Falcon

Comparison: Cost, Fuel, and Emissions Savings

TYPE	FUEL ECONOMY	OPERATING COSTS	EMISSIONS PER TANK/CHARGE	BREAK-EVEN ROI
INTERNAL COMBUSTION  Cessna F150	€ 264.45 per tank Max Range: 700 km € 0.4 per km	€ 190 per hour	300kg CO ₂ ^e per tank	N/A
RETROFIT  E-Cessna F150	€ 7,5 per charge* Max Range: ~220 km [^] € 0.03 per km	€ 50-70 per hour 75% less	30kg CO ₂ ^e per charge (coal-based electricity) 0kg CO ₂ ^e per charge (renewable electricity)	680 hours (Retrofit price divided by hourly cost savings) ~ 1-3 years begin savings

[^]Estimated range based on powertrain metrics

*Considering bulk electricity cost EUR 0,15 per kWh

CO₂ emissions are based on the following factor: 3.15 kg CO₂ /kg fuel



Verticals and Customers

Use Cases for Clearwings Aviation Retrofit Solutions



Individual Owners

- Small 1-4 seaters
- DTC Sales or Channel Reseller
- Private Flight Schools



Logistics

- Midsize planes 6-10-seater
- Retrofitted for cargo space



Emergency

- 4-10-seater
- Rural and field ops
- Disaster & military use cases



Airlines & Charters

- 6-19 seaters
- Optimized for short-haul routes
- Service model & ops support, battery as a service





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