LSA
Electric aircraft
Emergency fuel management parameters (proposal)

Reserve energy state of charge management in class D and G airspace

Pipistrel Alpha Electro LSA -

The minimum reserve energy requirements for safe landing operations as indicated in the POH (Section 5-2) is 30% battery State of Charge.
This translates to a practical minimum reserve level of 20 minutes of continuous cruise power at MTOW at the destination aerodrome and/or energy for one or more ‘go-around/s’.

In accordance with the manufacturers recommendations and the fuel requirements set out in the CASA MOS 19.03 (operational requirements), the intention is to operate the Pipistrel Electro LSA and communicate relevant fuel status to the ATC (in class D airspace) and to all stations (in Class G airspace) under the following conditions.

The **minimum reserve energy** should be no less than the required energy to fly:

- For 20 minutes at continuous cruise power at 1500 ft (450m) above the destination under VFR by day, taking off and landing at the same aerodrome/landing site when a minimum of 2 parallel runways are in use or an alternate runway is usable (unobstructed and within accepted crosswind limits). (this is in excess of EASA requirements for the category)*
- For 30 minutes at continuous cruise power at 1500 ft (450m) above the destination under VFR by day when flying to an alternate aerodrome/landing site. (this is in parallel with EASA requirements for the same category)*

The pilot-in-command shall advise ATC (or all stations) of a minimum fuel state by declaring **MINIMUM FUEL** when, having committed to land at a specific aerodrome, the pilot becomes aware of any change to the existing clearance or flight plan to that aerodrome that may result in landing with less than planned minimum reserve energy; OR, if changes to the active runways no longer allows for the landing conditions described above.

The **final reserve energy** should be no less than the threshold level of 15 minutes of indicated flight time on the aircraft EPSI display (approx. 25% indicated state of charge).

The pilot-in-command shall declare a situation of fuel emergency by broadcasting **MAYDAY, MAYDAY, MAYDAY, FUEL**, when the calculated usable energy predicted to be available upon landing at the nearest aerodrome where a safe landing can be made is less than the planned final reserve energy (25%).

*Link to EASA LSA final reserve requirements