



January 2024

POLICY STATEMENT ON BATTERY HANDLING RULES FOR VTOL AIRCRAFT USING BATTERY POWER FOR PROPULSION

1. Introduction

- 1.1 The CAA welcomes the continued efforts by the aviation industry to deliver new and innovative products to the market. As part of its efforts to support the industry, the CAA is giving an indication of its policy approach to battery handling rules for VTOL aircraft using battery power.
- 1.2 The intent of this policy statement is to apply a similar approach to battery handling that is already adopted for refuelling of conventional aircraft.

2. Scope

- 2.1 This Policy Statement applies to all aerodrome operators, where appropriate, groundhandling providers, maintenance facilities and aircraft operators of battery or hybrid powered VTOL aircraft engaged in the charging, discharging, maintenance and or replacement of batteries of VTOL aircraft.

3. Interpretation

- 3.1 In this Policy Statement, references to EU regulations are to those regulations as assimilated into UK domestic law under the European Union (Withdrawal) Act 2018 and are referenced as "Assimilated Regulation (EU) year/number" or "Assimilated Regulation (EU) No. number/year".

4. Definitions

- 4.1 Definitions included in this policy statement are intended to reflect the policy intent in the current regulations, namely: Assimilated Regulation (EU) 2018/1139 (the UK Basic Regulation) and Assimilated Regulation (EU) No. 1321/2014 (Continuing Airworthiness Regulation). They are reproduced below with an adaptation to reflect the needs for battery powered aircraft, where necessary.
- 4.2 '*apron*' means an area of an aerodrome intended to accommodate aircraft for purposes of loading or unloading passengers, baggage, mail or cargo, fuelling/charging, parking or maintenance.
- 4.3 '*groundhandling service*' means service provided at aerodromes comprising safety-related activities in the areas of ground supervision, flight dispatch and load control,

passenger handling, baggage handling, freight and mail handling, apron handling of aircraft, aircraft services, fuel and oil handling, battery charging, and loading of catering; including the case where aircraft operators provide those groundhandling services for themselves (self-handling).

- 4.4 *'maintenance'* means any one or combination of the following activities: overhaul, repair, inspection, replacement, modification or defect rectification of an aircraft or component.

5. Regulations applicable to battery charging

- 5.1 Charging of an aircraft battery without removing it from the aircraft is deemed to be a groundhandling service within the meaning of UK Reg (EU) 2018/1139 Art. 3(23). The procedure of charging the battery of VTOL aircraft will be deemed as energy replenishment similar to refuelling.

- 5.2 Service providers intending to offer a battery recharging service for battery powered VTOL aircraft on the apron should comply with the existing groundhandling and emergency response requirements contained in the Assimilated Regulation (EU) 2018/1139 (Basic Regulation) Annex VII section 2 OPERATIONS AND MANAGEMENT, in particular:

(g) the aerodrome operator shall verify that organisations involved in storing and dispensing of fuel/energy for propulsion to aircraft have procedures to ensure that aircraft are provided with fuel/energy for propulsion which is uncontaminated and of the correct specification;

(j) the aerodrome operator shall ensure, directly or through arrangements with third parties, that adequate aerodrome rescue and firefighting services are provided. Such services shall respond to an incident or accident with due urgency and shall include at least equipment, extinguishing agents and a sufficient number of personnel;

6. Commercial Air Transport

- 6.1 Where a VTOL aircraft battery is being recharged/discharged, the aircraft operator shall comply with Assimilated Regulation (EU) No. 965/2012 (Air Operations) Annex IV (Part-CAT) CAT.OP.MPA.195(a) and the aircraft battery shall not be recharged/discharged when persons are embarking, on board or disembarking.

- 6.2 Where an aerodrome operator intends to provide multiple refuelling options, a safety assessment should be conducted as part of their existing SMS to evaluate the risks and implement appropriate mitigation methods.

7. Non-Commercial Operations using complex motor-powered aircraft (Part-NCC)

7.1 Where a VTOL aircraft battery is being recharged/discharged, the aircraft shall comply with Assimilated Regulation (EU) No. 965/2012 (Air Operations) Annex VI (Part-NCC) NCC.OP.155 (a) and the aircraft battery shall not be recharged/discharged when persons are embarking, on board or disembarking.

8. Specialised Operations

8.1 Where a VTOL aircraft battery is being recharged/discharged, the aircraft shall comply with Assimilated Regulation (EU) No. 965/2012 (Air Operations) Annex VIII (Part-SPO) SPO.OP.155 (a) and the aircraft battery shall not be recharged/discharged when persons are embarking, on board or disembarking.

9. Regulations applicable to battery replacement

9.1 The replacement of a battery for a VTOL aircraft is deemed to be a maintenance activity and should be carried out by appropriately qualified and trained engineers.

9.2 Replacement of a battery, or its removal for charging, is subject to maintenance requirements contained in UK Regulation (EU) No. 1321/2014 (the UK Continuing Airworthiness Regulation).

9.3 Organisations responsible for the replacement of batteries should ensure they have appropriate processes, procedures, and trained staff in place to ensure the replacement of batteries is carried out safely.

10. Reference Documents

- [Assimilated Regulation \(EU\) 2018/1139 \(the UK Basic Regulation\)](#)
- [Assimilated Regulation \(EU\) No. 965/2012 \(Air Operations\)](#)
- [Assimilated Regulation \(EU\) No. 1321/2014 \(Continuing Airworthiness Regulation\)](#)

11. Review of Policy

The CAA retains the right to review this statement on a discretionary basis to consider technological developments, rulemaking progress, own research, and new evidence that may affect its views and policy.

12. Point of Contact

Any queries or further guidance required on the content or implementation of this Policy Statement should be addressed to:

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