



AIR NAVIGATION, AIRSPACE AND AERODROMES BRANCH

CASA Ref: F17/5509-6

Your Ref: SSI-70610456 Email Fri 22/08/2025 6:41 PM

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To be submitted via portal

Hunter Transmission Project - CASA Comments on EIS specifically the Aviation Impact Assessment

CASA has reviewed the Technical Report 16 Aviation Impact Assessment (AIA) by Aviation Projects July 2025 for the proposed Hunter Transmission Project. The steel lattice towers will be up to 85 m high.

CASA's main reservation with the project concerns aviation operations, especially gliding, at Warkworth Aerodrome. There is some increased risk associated with planned normal gliding operations; and there is further additional risk in the event of a tow plane engine (for example) failure.

The Hunter Valley Gliding Club made the following comments - copied from the AIA:

... proposal which has the potential to have an adverse safety impact on our airfield and our gliding operations. The presence of a 500 kV transmission line in the vicinity of Warkworth Airfield would create a risk of collision between a glider or powered aircraft with either a transmission line tower or the powerlines themselves. The risk of collision would be present during the normal take-off or approach for landing phases of flight, or during training exercises for emergency flight procedures that are conducted at low level adjacent to the airfield. In the event of an engine fault in the early phases of a flight requiring an immediate forced landing, transmission lines in the close vicinity of the airfield would present a serious hazard.

The transmission line would also present a risk to a glider pilot returning at a flat glide angle to the airfield and finding their flight path blocked by the transmission line, leading to an off-field landing in potentially unsuitable terrain. The risks presented by a 500 kV transmission line are greater for glider operations than powered aircraft due to a glider having less options for obstacle avoidance.

.... additional information and discussion is required

A meeting with HVGC occurred on 5 June 2025. The meeting was attended by representatives of HVGC, Gliding Australia, EnergyCo and Aviation Projects.

These comments by the Hunter Valley Gliding Club are credible in terms of Aviation Safety. CASA would be interested to know the results of the 'additional information and discussion'.

Indicative Emergency Response Actions are described at Table 7 on page 30 of the AIA (section 5.6.1 Warkworth Aerodrome).

CASA would be interested to know updated Gliding Australia (or Hunter Valley Gliding Club) comments on the AIA, with emphasis on the Indicative Emergency Response Action Review. Therefore, CASA awaits further evaluation from Gliding Federation (Gliding Australia) and / or the Hunter Valley Gliding Club.

It is noted that the unofficial Obstacle Limitation Surface (OLS) Take off Climb Surface or Approach Surface described in the AIA and in the consultation with the Gliding Club is based on a Code 1 runway.

However, the runway could be nominally Code 2 (for aircraft needing 800m – 1200m length), which would mean that the take off surface is 2500m long at 4%. The towers or power lines would be close to infringing hypothetical Code 2 Take-Off and Approach Surfaces. CASA does not have specific guidance for Glider Obstacle Limitation Surfaces.

Also, the EIS Table C.3 advises: An infringement of uncertified obstacle limitation surface is expected at Warkworth aerodrome. EnergyCo will engage in further consultation to ensure proper safeguards and an obstacle limitation surface specific to transmission infrastructure are implemented.

The questions could be raised:

Is there an alternative route which would not affect aviation safety?

Is there a plan for the relocation of the transmission lines in the area to the east of the Warkworth Aerodrome?

Are underground transmission lines feasible?

It appears that from EIS 3.5 that there are no route options east of Warkworth Aerodrome. EIS Table 3.6 advises 'minimize hazards and risks'.

As an Indication of what can happen: This month an ATSB report advised for an incident at a similar gliding operation: *"During glider towing operations, the engine of the Hornet Stol ran rough and lost partial power. Subsequently, the crew released the tow rope from the PZL Bielsko 51-1 Junior. The engineering inspection revealed a failure of the head gasket."*

CASA notes that the runway is already constrained to some extent by power lines near the west end of the runway. In the consultation with the Hunter Valley Gliding Club copied from the AIA: while this is outside our mining surface OLS, it is in a position that during emergency exercise training is uncomfortably close. With constraints at the west end, it is preferable that the east end is relatively unconstrained.

As advised in the EIS: Consultation on aviation safety and potential impacts; use of cranes, helicopters, drones during construction should be conducted with the Hunter Valley Gliding Club.

CASA does not regulate or keep a database of Helicopter Landing Sites (or uncertified aerodromes such as Warkworth). However, it is noted on AIA page 49 AS3/5 that mine complexes and landowners will be consulted. The consultation (or completed consultation or future consultation) should include the possible requirement for aerial warning markers on the transmission lines.

It is noted that the transmission lines are within Defence Restricted area R564A and Defence is being consulted. *"Consultation with the Department of Defence is ongoing. Marker ball installation may be required within Singleton Military Area and will be determined during detailed design."* (AIA page 35). Defence has a robust estate planning

capability. CASA does not intend to comment on Defence estate implications (unless specifically requested by Defence).

Except for the reduction in aviation safety for aviation operations at Warkworth, especially in emergency situations, CASA agrees with the AIA Conclusions and the implementation of the processes described throughout the AIA will maintain Aviation Safety to a reasonable extent.

If an Amendment Report is relevant for this project, (and/or if it is intended to update the AIA) the following enhancements could be considered:

- Gliding Australia (or Hunter Valley Gliding Club) comments on the AIA, with emphasis on the Indicative Emergency Response Action Review.
- Whether there is a possibility of moving the transmission line corridor further to the north east (for example, although it appears the river and private property could be issues). Or buried (for example, like at Western Sydney).
- Confirmation that there is no additional risk of a dragging tow rope impacting the transmission lines.
- Confirmation that a Code 2 OLS would not be appropriate for Warkworth Aerodrome.

Yours sincerely

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22 September 2025