HUNTER VALLEY GLIDING CLUB CO-OP LTD
ABN: 36 104 071 896
PO Box 794, Singleton, NSW 2330

22 September 2025

NSW Planning

Dear Sir/Madam,

RE: RESPONSE TO THE EIS FOR HUNTER TRANSMISSION PROJECT

The Hunter Valley Gliding Club (HVGC) are the owners and operators of Warkworth Airfield which is located adjacent to the proposed Hunter Transmission Project corridor. We are seriously concerned that this project will have an adverse safety impact for both gliders and powered aircraft operating from the airfield. This is contrary to the findings reported in the EIS that there will be no adverse impact on operations at Warkworth Airfield. We have significant concerns as to the validity of the consultation, the assessment methodology and the conclusions that have been reached in the Aviation Impact Assessment (AIA). The background and explanation of our position are outlined below.

Warkworth Airfield

Warkworth Airfield was built by the RAAF as a dispersal airstrip in 1942 as a component of the Commonwealth Government's 73 Squadron Plan and constructed to a standard suitable for the operation of medium bombers. The Hunter Valley Gliding Club (formerly the Newcastle Gliding Club) has operated from this airstrip since 1965 and has owned the airstrip since 1974. As well as supporting the local gliding operations the airfield is an important asset for aviation activities external to the club's operation. This includes use by visiting sports aircraft, pilot training operations from training schools based in the Hunter Valley and the Sydney region as well as use by emergency services. It has served as a valuable resource for Rural Fire Service during bushfire events in Wollemi National Park, and as a backup for Cessnock Airport when it was closed for runway repairs. It is one of very few all-weather airstrips located within the Singleton Council LGA and a valuable asset for the region.

Warkworth Airfield is the home base for 38 gliders and 4 powered aircraft. In the 2024/25 financial year the airfield was active for 120 days with a total of 3,719 gliding related aircraft movements. Records are not available to quantify use by flight schools or commercial operations that make use of the strip, however additional activity happens on most days when the weather is suitable. Whilst the Hunter Valley Gliding Club is not active every day of the week, when activity does occur there is intense activity which is concentrated in a period from 11.00 am to 4.00 pm when the conditions are best for soaring flights. This level of activity is much greater than many of the regional and country airports in NSW. A significant portion of the gliding flights from Warkworth Airfield are training flights including solo flights by low hour pilots who are much less capable of dealing with the presence of powerlines during emergency situations. The high level of operational activity and the inclusion of inexperienced

pilots are factors that increase the level of risk presented by the proposed HTP powerlines, a fact that is not taken into consideration in the EIS and AIA.

Lack of meaningful consultation with Hunter Valley Gliding Club

HVGC first became aware of the Hunter Transmission Project (HTP) when the preliminary corridor was published by EnergyCo in November 2023 with a call for public comment. HVGC submitted a formal response in December 2023 which is included in Appendix B of this submission. Following this we were invited to a meeting at EnergyCo's Newcastle office with the community relations team. At this meeting we discussed our concerns and our desire to determine an Obstacle Limitation Surface (OLS) which the powerlines should not breach. This is in line with the strategy we adopted when negotiation with Hunter Valley Operations South when mining activities created a spoil dump close to the western end of the airfield. Our aim was to provide an objective methodology to judge the impact of the power lines on aircraft safety. The community engagement team stated that they would pass this to the project team and have them establish contact with us. EnergyCo made no efforts to establish consultation with HVGC prior to EnergyCo publishing the preferred corridor and calling for public submissions.

Following the publication of the preferred corridor in February 2024 EnergyCo requested an on-line meeting with HVGC. During this meeting we were shown a map of proposed tower locations but were not provided with any written documentation under the guise of the corridor still being a preliminary design. Following the meeting HVGC provided a formal written submission to EnergyCo. This submission is included in Appendix C of this submission. In response to our submission another on-line meeting was conducted with the project team with the inclusion of EnergyCo's aviation consultant. At this meeting EnergyCo stated that the project team and the aviation consultant would continue discussion with us about the impacts of the powerline on our operation, including visiting us to understand our operations. EnergyCo made no efforts to contact HVGC to continue consultation until they contacted us in February 2025 requesting a meeting to discuss the findings of the Aviation Impact Assessment (AIA).

Following EnergyCo's request for a meeting, HVGC requested a copy of the AIA so we could review it prior to a meeting rather than being presented it cold. EnergyCo declined to provide a copy of the AIA to HVGC, so the meeting was not arranged until EnergyCo begrudgingly provided by email a summary of the findings of the AIA that they judged to be related to Warkworth Airfield in early May 2025. HVGC provided a formal written response about the AIA to EnergyCo in mid-May and a meeting was held on 5 June 2025 to discuss our response. A copy of our submission in response to the AIA summary is included in Appendix D of this submission. At that meeting a list of actions were created for each party to continue discussions. This list of actions is shown in Table 9 *Stakeholder consultation* at the end of the section relating to HVGC. Action 5.1 for HVGC to provide runway data to EnergyCo was completed by HVGC on 12 June 2025 (7 days after the meeting), action 5.3 for EnergyCo to provide data to allow HVGC to complete 3D modelling of the powerline location was completed by EnergyCo on 7 August 2025 (63 days after the meeting). The data provided by EnergyCo was simply GPS coordinates and heights of the towers in a spreadsheet and was included in an email informing us that the EIS would be submitted in the next two weeks. This late provision of poor-quality data by EnergyCo coupled with the short EIS review period has prevented HVGC from being able to complete 3D modelling of the powerline location to improve our understanding of potential impacts. HVGC were unable to view the AIA in its entirety until the EIS was published for public comment.

The AIA has been prepared by Aviation Projects based on a limited understanding of our operations obtained from a 1.5-hour on-line meeting held in February 2024. The failure of EnergyCo and Aviation Projects to properly consult with HVGC has resulted in several erroneous statements being made about our operation in the AIA. It is a significant concern that such statements would be considered by a reviewer of the EIS to be true facts. HVGC finds it inexplicable that the AIA that is considering a potential outcome of multiple fatalities should an aircraft collide with the powerlines can be completed without visiting Warkworth Airfield.

During the on-line meeting with EnergyCo in February 2024 we were shown a map of likely tower locations adjacent to Warkworth Airfield. It is now evident that between February 2024 and the EIS submission there has been no adjustment to the position of the tower locations. We are firmly of the opinion that the route of the powerline was decided without consideration of the presence of Warkworth Airfield and prior to the commencement of consultation with HVGC. EnergyCo has displayed a disinterest in consultation with HVGC demonstrated by a failure to comply with any promises they made in meetings and very tardy response to provide meaningful information, if at all, to HVGC. We consider that the strategy of EnergyCo has been to utilise the AIA to justify a predetermined location of the power line and not to independently and rigorously assess the risks the powerlines pose to aviation.

Misrepresentation of HVGC's position

The EIS and AIA comment that HVGC has been consulted about the development of this project. In section 6 of the AIA, Table 9 *Stakeholder consultation* includes a formal submission HVGC made to EnergyCo on 4 December 2023. This submission related to the preliminary corridor and prior to any disclosure by EnergyCo of the proposed tower locations. HVGC also made formal submissions to EnergyCo on 20 February 2024 and 15 May 2025. It puzzles us as to why these are not noted as Stakeholder Consultation especially as each notes significant concerns that we have about the project. These formal submissions are included in full in appendices to this response. In each response made by HVGC we very clearly state that we are not satisfied with the approach and conclusions reached by EnergyCo and Aviation Projects. Yet never is it acknowledged in the EIS or AIA that the operator of Warkworth Airfield is concerned about the safety impacts of the proposed powerline. Many of the issues we raised in our previous submissions have not been adequately addressed in the EIS and AIA. We consider that the failure to include all our submissions within the AIA is a deliberate attempt to hide valid concerns that HVGC has raised.

In the first formal submission made by HVGC we discussed the issue of determining an obstacle limitation surface (OLS) as a methodology to define whether obstacles adjacent to the airfield would constitute a hazard to aviation. As part of this discussion, we provided a sample OLS that was developed during consultation with mining companies to assess the impact of mine overburden dumps on our operation. This diagram was titled "*Warkworth Airfield Obstacle Limitation Surface for mining operations".* It is clear in our submission that this is not an OLS we have proposed for assessment of powerlines. However, Aviation Projects have used this information in Figure 12 with the title *"Warkworth aerodrome unofficial OLS".* We consider that the use of the information we provided in good faith to demonstrate previous consultation has been inappropriately used to demonstrate the powerline corridor is clear of our "unofficial OLS".

Within section 5.6.1 of the AIA in conjunction with Figure 11, it is claimed that the closest point of the HTP corridor to the end of the runway is "approximately 2.7 km". While this statement may be factually true it is a misleading measurement to indicate the location of the HTP corridor relative to Warkworth Airfield due to the oblique orientation of that part of the corridor to the runway. Figure

11 appears to be missing dimensional information that the title of the Figure 11 implies is displayed and the 140 m wide HTP corridor is misleadingly represented as a single line. In Appendix A of this submission is contained HVGC's representation of the location of the HTP corridor relative to the airfield. We suggest that the AIA should have noted that the HTP corridor is located 1,320 m from the boundary of the airfield at its closest location and that the end of the approach surface at an 80 m elevation is less than 120 m from the HTP corridor, which is at an 85 m elevation.

Figure 13 in the AIA reflects the Code 1 OLS proposed by HVGC to determine the likelihood of impacts on aviation safety. This figure misleadingly represents the 140 m wide HTP corridor as a single line. Subsequent sections of the AIA discuss intrusion of the HTP corridor above the inner horizontal surface of the OLC, represented by the inner yellow ring in Figure 13. The AIA fails to note that the HTP corridor is also intruding into the conical surface of the OLS, represented by the green concentric rings in Figure 13. The elevation of the outer edge of the conical surface is at 80 m, still below the 85 m elevation of the HTP corridor. The AIA attempts to downplay the extent of the intrusion of the HTP corridor into the OLS. HVGC's opinion is that the HTP corridor is a major intrusion cutting diagonally across a significant area of the OLS.

Within section 5.6.1 of the EIS are some misleading statements are made that are symptomatic of the aviation consultant not engaging in discussion with HVGC about our operations or visiting the site to see our operations firsthand.

- The AIA comments multiple times that the glider and tug combination during a launch would climb to 500 feet and then commence a turn. This is used to make a claim that the launch combination moves away from the powerlines early in the launch. This is contrary to HVGC operation practice, as documented in our Aerotowing Manual, that the tug must continue in a straight line until an altitude of 1000 feet is reached. This is done to avoid conflict with gliders that are joining the downwind leg of the circuit.
- The AIA contains a statement that "there are other transmission lines that require similar consideration by pilots". This may be a true statement if a glider is forced to outland in a field away from the airfield, however in the vicinity of the airfield no other powerlines intrude into the OLS that has been proposed by HVGC. No other powerlines require the consideration that will need to be given to the 500 kV powerline during usual operations.
- The AIA makes dismissive comments about information HVGC has provided regarding the length of the airfield. We don't see why the aviation consultant should choose to use information about our runway length and position derived from desktop research or by viewing Google Maps in preference to information provided by the owner and operator of the airfield.
- The AIA notes that "gliders may conduct a right-hand circuit" based on a CASA publication. Both the gliders and tow plane regularly conduct right-hand circuits, both for operational reasons and for training exercises. It is misleading to indicate that this is an unusual event.
- The AIA claims that visiting power training aircraft will "be a minimum height of 1000 feet above the runway when over the HTP corridor". It appears no consideration has been given to training in flying precautionary circuits. This training exercise is conducted by most training flights and involves flying alongside the runway at a level well below circuit height, offset from the runway centreline, to complete a visual inspection of the landing area. Such flights flown on the northern side of the runway will be in potential conflict with the proposed powerlines.

While the preparation of complex documents may contain some errors where aspects might be misunderstood, the HTP Aviation Impact Assessment contains a myriad of statements that

misrepresent the true situation and are used in combination to create bias against the proper consideration of the HTP powerlines on aviation safety.

Lack of a formal risk assessment and objective measures to define what has no impact

The most probable consequence of an aircraft impacting a 500 kV powerline is fatalities to one or more persons. An Australian Transport Safety Bureau (ATSB) report *Wirestrikes involving known wires* [Report AR-2011-028] states that the ATSB database for the period between 2001 and 2010 records 180 wirestrike accidents in Australia and that 63% of pilots were aware of the position of the wire before they struck it. The combination of a very high consequence and a not insignificant occurrence rate indicates that powerlines adjacent to aircraft operations present a risk level that would be classified as "high". HVGC expects that this risk should be assessed using a formal risk assessment methodology. An example of an appropriate methodology is provided by the Civil Aviation Safety Authority (CASA) document *SMS 3 Safety Risk Management* [CASA 2022]. HVGC is concerned that the assessment methodology applied in the AIA is to make subjective statements about the risk to aviation in lieu of a formal risk assessment. HVGC considers this is inappropriate for this level of risk.

The AIA proposes in Section 7, Table 10, at reference AS1 that the mitigation measure for the impact of the powerlines on the safety of aircraft movements is *"the final location of the transmission line and towers, with coordinates and elevations will be provided to stakeholders"*. Given the significance of the risk level as discussed above, this nomination of a mitigation measure at the lowest level of the Hierarchy of Control is contrary to contemporary risk management methodology defined in documents such as the CASA risk management guideline. A properly conducted risk assessment should have considered the change in risk level presented by the powerlines in their proposed location against the risk level if they are located further from the airfield. Varying levels of risk could then be compared on an equitable basis.

At meetings in 2024 HVGC outlined to EnergyCo our concerns as to the impact of the powerlines on aviation safety when an aircraft take-off doesn't proceed as normal. This is a concern for HVGC because accidents don't occur when operations proceed as normal, instead they occur as the conclusion of a series of unexpected events. This is a commonly accepted theory espoused in James Reason's Swiss Cheese Model of aviation safety. In the event of a take-off emergency a safe landing option existed in the cultivated fields alongside the Hunter River which the proposed HTP corridor cuts off from Warkworth Airfield. This concern had not been addressed when HVGC were presented with the summary of the AIA in June 2025. At the meeting in June, an action was noted for Aviation Projects to address this aspect. In response EnergyCo provided to HVGC Aviation Project's modelling two weeks prior to the lodgement of the EIS. This modelling is presented in the AIA as Table 7 and is a simplistic model of a take-off that occurs as normal until a sudden emergency arises. No consideration is given to the situation where the launching aircraft fails to develop full power but persists with the launch until the point where it becomes evident that the situation is not improving and the launch is abandoned. HVGC have experienced this situation with multiple causes, the pilot commencing take-off with carburettor heat applied, a loss of fuel supply due to fuel vaporisation or the failure of a single engine magneto are real examples. These situations present a different positioning of the aircraft to the modelling proposed in the AIA. HVGC consider that the assessment is biased in not considering this scenario and that HVGC was prevented from responding to this information provided shortly prior to the EIS lodgement.

The AIA notes in section 5.6.1 that *"there is a precedent for infringements of the inner horizontal surface throughout Australia that have been approved at certified airports"* as a justification that an intrusion of an OLS at Warkworth Airport is not a risk to aviation safety. HVGC considers that such a statement is erroneous without providing details of those examples of approved OLS intrusions and a comparison of those geometric configurations with the HTP corridor adjacent to Warkworth Airfield. The AIA fails to consider that in July 2008 a glider operating from the Southern Tablelands Gliding Club's airfield at Carrick NSW collided with a set of high-tension powerlines, resulting in the pilot receiving significant life changing injuries. The HVGC considers that the AIA is biased against HVGC when it makes the unsupported claim that many OLC intrusions are not a risk when there is evidence that some OLC intrusions have led to aviation accidents.

The AIA comments in section 5.6.1 that CASA Civil Aviation Safety Regulations (CASR) do not specify a minimum clearance distance that must be achieved during take-off. On this basis a subjective claim is made that a clearance of 220 feet is safe. HVGC's opinion is that 220 feet is a small clearance that provides little safety margin. Rather than making such subjective claims the assessment should be based on formal risk assessment.

The AIA in section 5.6.1 quotes a section of CASR Part 91 Chapter 24 regarding pilot responsibilities to assess the capabilities of their aircraft and the airfield condition prior to making a decision as to whether it is safe to take-off. HVGC considers that including this comment in the AIA is inappropriate and not related to assessing safety impacts of the powerlines. Aviation projects are essentially saying that it is OK to obstruct the take-off path and then place the responsibility onto a pilot to decide if they can visit Warkworth in their low powered vintage aircraft during our Easter Vintage Regatta.

In section 5.6.1 of the AIA attempts to disregard HVGC's proposed application of a Code 1 OLS as a objective means for assessment of aviation impacts on the basis that Warkworth Airfield is not a certified aerodrome. The Code 1 OLS is an international established measure for determining areas where careful consideration of tall structures or terrain should be undertaken. Risks to aviation are the same irrespective of an airfield's certification status.

Cessnock is a CASA certified aerodrome because of Cessnock City Council's desire to have an airport suitable for use by charted and regular public transport (RPT) aircraft. The Cessnock Airport Strategic Plan [Cessnock City Council 2018] notes that in 2018 the airport movements were stabilised at around 14,000 movements per annum. If this airport operates 365 days, it is averaging 38 movements per day. Warkworth Airfield last financial year experienced 3,719 movements over 120 days of operation, an average of 31 movements per day. While Cessnock Airport may have the occasional charter or business jet operations, most of the movements are general aviation (GA) and recreation (RAAus) aircraft. HVGC considers that it is unfair for the AIA to consider an OLS as appropriate to assess risk at Cessnock Airport but not at Warkworth Airfield when the level of activity and the type of activity are very similar.

As well as the actual risk posed by the powerlines, HVGC have raised with EnergyCo the issue of perceived risk that pilots will have when launching or flying legs of a circuit directly towards the very significant structure of the powerlines. While the perceived risk may be different to actual risk it is likely to make some pilots nervous about flying from Warkworth Airfield, impacting their enjoyment of flying and potentially reducing our membership level. HVGC considers that this is a valid issue related to aircraft safety that has not been addressed by the AIA.

Repeatedly throughout the AIA the risk presented by the HTP corridor on the safety of aviation at Warkworth Airfield is dismissed by subjective statements or dismissed under the guise that CASA

legislation does not specifically require action to be taken. The failure of Aviation Impacts to assess the risk utilising formal risk assessment methodology should make the conclusions reached in the AIA invalid.

Conclusion

HVGC is of the opinion that the Aviation Impact Assessment is not a valid assessment of the actual impact of the HTP on Warkworth airfield, and it would be misleading for a reviewer of the EIS to accept the conclusions it has reached as true. We maintain our original position that an appropriate OLS needs to be agreed upon with HVGC and that the only options that will not have a safety impact and those that do not intrude into such an OLS. HVGC recommends that independent review of aviation impacts is required and that EnergyCo must engage in proper consultation with HVGC to resolve our concerns in a fair and transparent manner.

Regards

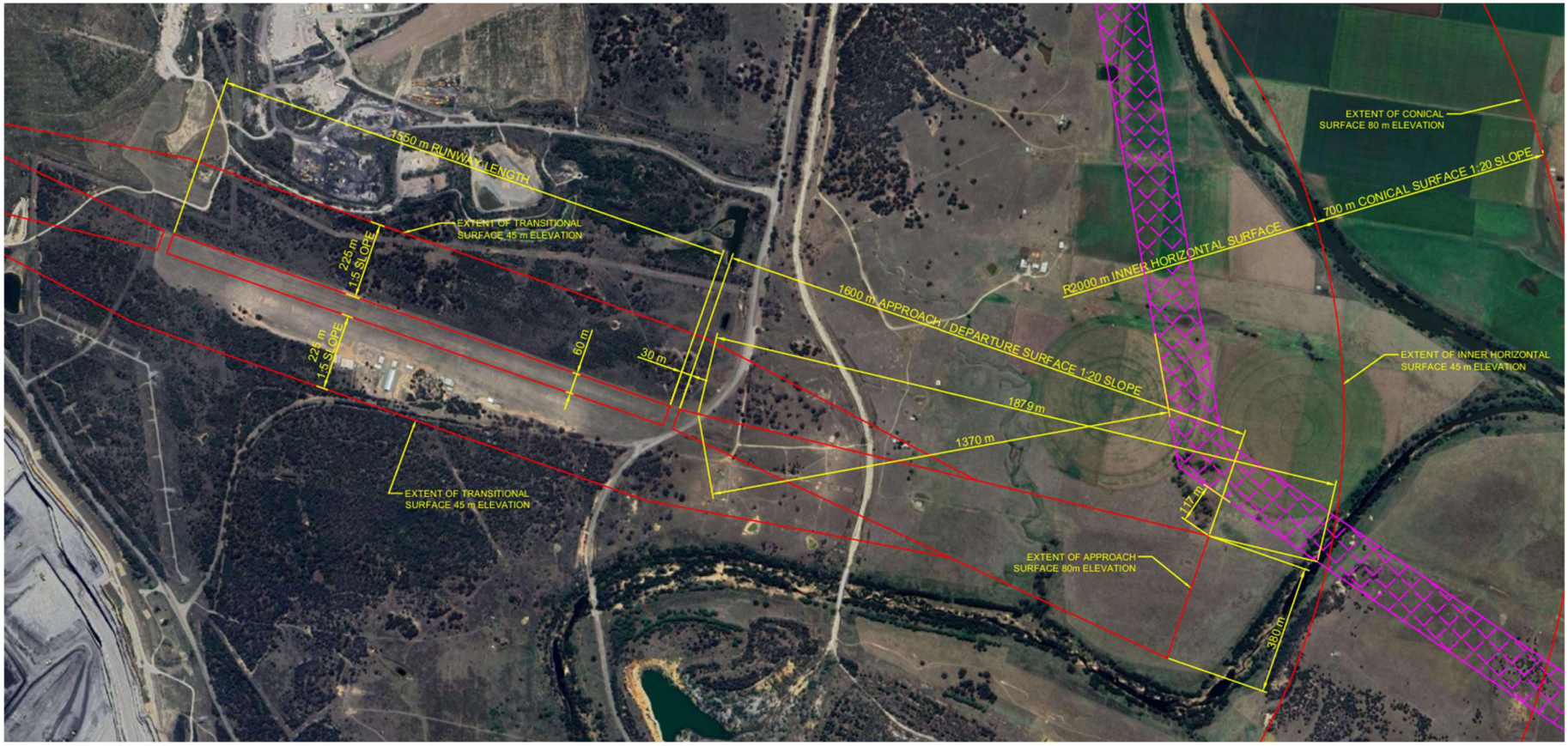
For and on behalf of the committee and members

A Dickson

Andrew Dickson
Director
Hunter Valley Gliding Club Co-op Ltd

Appendix A

Warkworth Airfield and HTP corridor dimensions


1550 m RUNWAY LENGTH
EXTENT OF TRANSITIONAL SURFACE 45 m ELEVATION
225 m 1:5 SLOPE
225 m 1:5 SLOPE
60 m
30 m
1600 m APPROACH / DEPARTURE SURFACE 1:20 SLOPE
1879 m
1370 m
EXTENT OF TRANSITIONAL SURFACE 45 m ELEVATION
EXTENT OF CONICAL SURFACE 80 m ELEVATION
700 m CONICAL SURFACE 1:20 SLOPE
R2000 m INNER HORIZONTAL SURFACE
EXTENT OF INNER HORIZONTAL SURFACE 45 m ELEVATION
117 m
EXTENT OF APPROACH SURFACE 80m ELEVATION
380 m

Appendix B

HVGC response to the HTP preliminary corridor

A formal submission made to EnergyCo on 4 December 2023

HUNTER VALLEY GLIDING CLUB CO-OP LTD
ABN: 36 104 071 896
PO Box 794, Singleton, NSW 2330

4 December 2023

EnergyCo
PO Box 1255
Newcastle NSW 2300

Dear Sir/Madam,

RE: PROPOSAL FOR HUNTER TRANSMISSION PROJECT PRELIMINARY CORRIDOR

The Hunter Valley Gliding Club (HVGC) wishes to make the following comments regarding this proposal which has the potential to have an adverse safety impact on our airfield and our gliding operations. The Project Overview document contains discussion regarding the selection of the preliminary corridor that does not give any indication as to whether the planners of this project are aware of the location of Warkworth Airfield and the potential for the 500 kV transmission line to negatively impact the safe operation of the airfield.

Warkworth Airfield

Warkworth Airfield was built by the RAAF as a dispersal airstrip in 1942 as a component of the Commonwealth Government's 73 Squadron Plan and constructed to a standard suitable for the operation of medium bombers. The Hunter Valley Gliding Club has operated from this airstrip since 1965 and has owned the airstrip since 1974. As well as supporting the local gliding operations the airfield is an important asset for aviation activities external to the club's operation. This includes use by visiting sports aircraft, pilot training operations from training schools based in the Hunter Valley and the Sydney region as well as use by emergency services. It has served as a valuable resource for Rural Fire Service during bushfire events in Wollemi National Park, and as a backup for Cessnock Airport when it was closed for runway repairs. It is one of very few all-weather airstrips located within the Singleton Council LGA and a valuable asset for the region.

Warkworth Airfield is defined by Lot 10 of Deposited Plan 247239 and Lot 92 of Deposited Plan 733895, both owned by Hunter Valley Gliding Club, and part of Lots 5 and 6 of Deposited Plan 247239 that are utilised under an agreement with United Wambo Joint Venture (UWJV). The airfield location is at 115 Comleroi Road, Warkworth. The preliminary corridor mapping included in the Project Overview document shows that Warkworth Airfield is wholly located within the preliminary corridor.

Risks posed by a 500 kV transmission line

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 tower or the powerlines themselves. Given the height of the proposed structure above ground level, there is a high likelihood that such a collision would have fatal consequences for the occupants of an aircraft. 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.

Obstacle Limitation Surface

The risk of aircraft collisions with terrain or fixed obstacles in the vicinity of an airfield is mitigated through the definition of an Obstacle Limitation Surface (OLS). This defines a surface above which terrain and obstacles must not intrude. To maximise the safety of our existing operations the Hunter Valley Gliding Club has established an agreed OLS with the adjacent Hunter Valley Operations and United Wambo Joint Venture mining operations. This is illustrated in figure 1 below. This OLS was developed with the intention of limiting the height of terrain adjustment though mining operations adjacent to the airfield, rather than defining an OLS for infrastructure such as transmission lines.

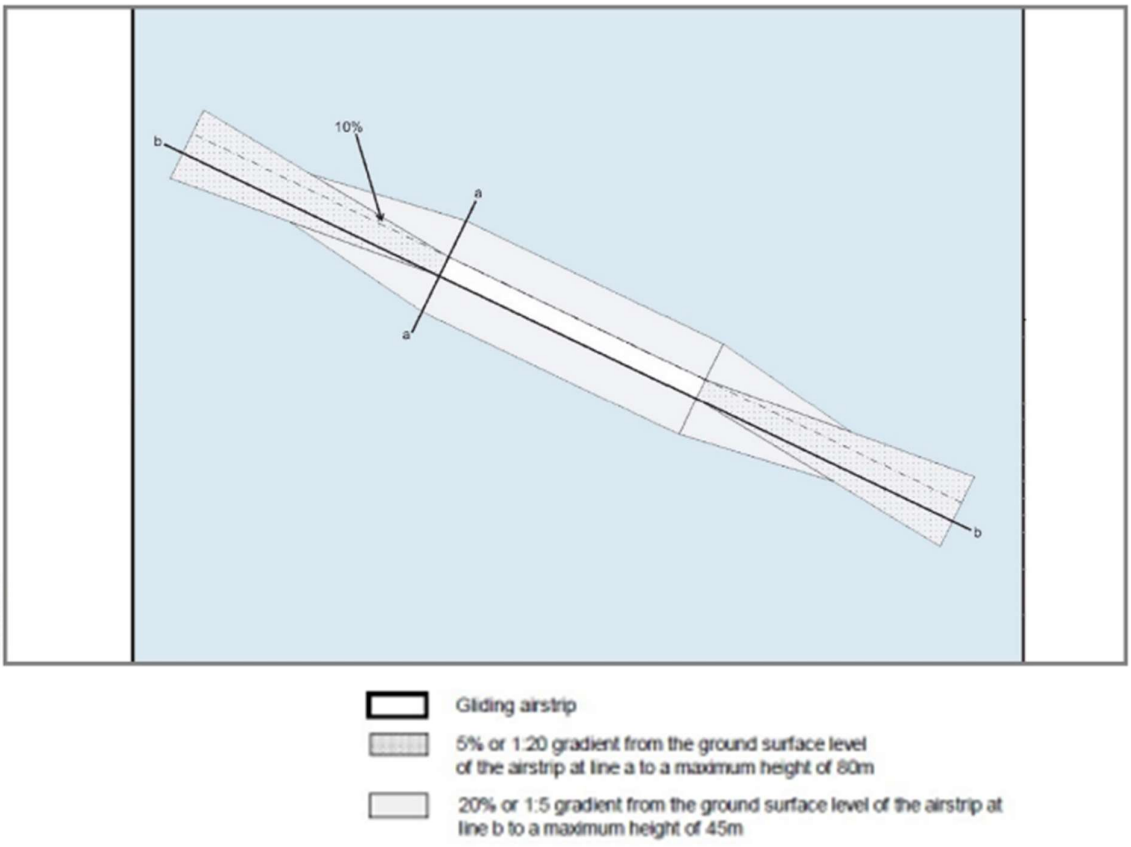


Figure 1. Warkworth Airfield Obstacle Limitation Surface for mining operations

The existing OLS extends for 1.6 km (1 in 20 to an 80 m height) beyond the boundary of the airfield in a direction parallel to the runway alignment. In the direction perpendicular to the alignment of the airfield the OLS extends for 225 m (1 in 5 to a 45 m height). There is a 330 kV transmission line, approximately 50 m high, located 275 m from the edge of the airfield's south-western boundary. Our experience with this 330 kV transmission line is that while this is outside our mining surface OLS, it is

in a position that during emergency exercise training is uncomfortably close. It also places a limitation on our future operations by constraining them to the current orientation of the landing strip.

Looking forward to HTP2

Appendix 2 of the Project Overview document discusses a future proposal to duplicate the 500 kV transmission line as HPT2, including the possibility that this would replace one of the existing 330 kV transmission lines. We have concerns that this may occur in the easement for the 330 kV lines that are located just to the south-west of the airfield. These lines were moved from their original alignment closer to the airfield as part of United Wambo Joint Venture mining plans. The club is of the opinion that these transmission lines should be returned to their original alignment if they are to be upgraded to 500 kV. Their relocation closer to the airstrip was considered as part of an Agreement for Mitigation Measures negotiated between HVGC and UWJV. Our opinion is that this should not be seen as an acceptance by HVGC for these transmission lines to be subject to future upgrades by a third party. The map on page 20 of the Project Overview document shows the original location of the 330 kV transmission line and not their existing location since their adjustment by UWJV.

Hunter Valley Gliding Club response to the preliminary corridor

1. Warkworth Airfield is an important resource for the Singleton LGA community that the Hunter Valley Gliding Club has protected as an operational airfield despite being surrounded by intensive open-cut mining activity. It is important to ensure the development of the 500 kV transmission line as the Hunter Transmission Project does not negatively impact the safe operation of the airfield, nor limit its future use and development to support local aviation.
2. If a new transmission line is located in the vicinity of Warkworth Airfield, then a suitable OLS needs to be agreed upon for application to both HTP and HTP2 projects. This OLS must consider the use of Warkworth Airfield for gliding operations and not constrain the potential future aviation activities nor the ongoing development of the airfield.

Considering the issues highlighted above, the Hunter Valley Gliding Club is of the opinion that additional information and discussion is required to allow us to properly understand the impact of this proposal on our operations. Until such actions have taken place the Hunter Valley Gliding Club is opposed to the proposed HTP preliminary corridor.

Regards

For and on behalf of the committee and members

A Dickson

Andrew Dickson
Director
Hunter Valley Gliding Club Co-op Ltd

Appendix C

HVGC response to the release of the HTP preferred corridor

A formal submission made to EnergyCo on 20 February 2024

HUNTER VALLEY GLIDING CLUB CO-OP LTD
ABN: 36 104 071 896
PO Box 794, Singleton, NSW 2330

20 February 2024

EnergyCo
PO Box 1255
Newcastle NSW 2300

Dear Sir/Madam,

RE: PROPOSAL FOR HUNTER TRANSMISSION PROJECT PREFERRED CORRIDOR

Thank you for including the Hunter Valley Gliding Club (HVGC) in discussions on Tuesday 13th to understand your preferred corridor for the 500 kV transmission line. We understand that the refined proposal places the power line generally to the east of the airfield and to the west of the Hunter River and west of the junction of the Hunter River and Wollombi Brook. This proposed location remains a significant concern for the club committee, and we consider this location will negatively impact the safety of operations at Warkworth Airfield.

Our specific concerns regarding the preferred corridor are as follows.

- Preliminary analysis of glider launching paths from runway 10 and landing paths to runway 28 has been undertaken using previously recorded flight data. This analysis indicates that flight paths do pass over the preferred corridor. We consider this indicates the presence of the powerlines will have an impact on the safety of our operations.
- Any historical flight path data we have about take-off paths and landing circuits, and any data we would collect in coming weeks, will only be representative of gliding operations when all goes well. We will not have data to show possible emergency situations nor the launch path of future aircraft that might operate from the airfield such as launching with lower powered tug aircraft or flights by motor gliders. We are cautious about making decisions about the future safety of the airfield based solely on current day gliding operations.
- Generally, the immediate vicinity around Warkworth Airfield provides very limited opportunities for off-field landings in an emergency such as power failure of an aircraft in the take-off stage. Suitable emergency landing area exist in the cultivated fields along the Hunter River to the north of the extended centreline of runway 10. The preferred corridor will prevent low level access to these fields in the event of a launch failure in the early stages of a launch.
- Powerlines located in the preferred corridor will prevent gliders making straight in approaches to runway 28 from the east. Straight in approaches are sometimes conducted to practice competition finishes. These flight paths would typically commence below 1000 feet at a distance of 5 km from the airfield and at high speed.
- The preferred transmission line location will require the flying of a downwind leg for right hand circuits to runway 28, the base leg of a left-hand circuit on runway 28, and a launch from runway 10 directly towards the transmission line. With towers 70 m high that are clear of any surrounding vegetation this is likely to be daunting to low experience pilots. We see that this may create a perception of Warkworth Airfield being an unsafe site or a difficult site to operate from. Consequently, this will reduce the future value of Warkworth Airfield to the aviation community.

- The preferred corridor remains a significant width and there are potentially significant differences in the safety impact on airfield operations between the powerline being located on the western or eastern edge of this corridor.
- Warkworth Airfield is not only used for gliding operations, but also for powered flying training activities by organisations located remotely from Warkworth. Future operations from Warkworth Airfield are likely to include increasing flying by RAAus category aircraft as this is a rapidly growing sector of the recreational aviation community. Our aim is to ensure we maximise the safety of the airfield for all future aviation activities.
- The original published preliminary corridor showed that an area east of the Hunter River was under consideration. The opinion of HVGC is that the distance the transmission line was located from the airfield should have been maximised within the preliminary corridor, and the power line run parallel to the existing 330 kV line to the east of the Hunter River. The safety of an operational airfield should have been given a higher priority in determining the preferred corridor.
- The position of HVGC is that the location of the transmission line should be such that it has no safety impacts of the future operation of Warkworth Airfield. There is no scope to compromise aviation safety by perceiving that a "workable solution" is a viable option.

Hunter Valley Gliding Club response to the preferred corridor

3. Warkworth Airfield is an important resource for the Singleton LGA community that the Hunter Valley Gliding Club has protected as an operational airfield despite being surrounded by intensive open-cut mining activity. It is important to ensure the development of the 500 kV transmission line as the Hunter Transmission Project does not negatively impact the safe operation of the airfield, nor limit its future use and development to support local aviation.
4. The most appropriate basis of design for the transmission line location is to accept the CASA definition of a Code 1 airfield obstacle limitation surface (OLS), as defined in chapter 7 of the Part 139 MOS, is the minimum acceptable standard. This removes the necessity for objective analysis of gliding operations and accepts a position that CASA sees as reasonably practicable to ensure airfield safety.

Considering the issues highlighted above, the Hunter Valley Gliding Club remains opposed to the preferred HTP corridor in the location that has been presented to us.

Regards

For and on behalf of the committee and members

A Dickson

Andrew Dickson
Director & Safety Officer
Hunter Valley Gliding Club Co-op Ltd

Appendix D

HVGC response to the Aviation Impact Assessment

A formal submission made to EnergyCo on 15 May 2025

HUNTER VALLEY GLIDING CLUB CO-OP LTD
ABN: 36 104 071 896
PO Box 794, Singleton, NSW 2330

15 May 2025

EnergyCo
PO Box 1255
Newcastle NSW 2300

Dear Sir/Madam,

RE: HUNTER TRANSMISSION PROJECT AVIATION IMPACT ASSESSMENT (AIA)

Thank you for providing the Hunter Valley Gliding Club (HVGC) with the summary of the early findings of the Aviation Impact Assessment (AIA). We are concerned that you have only provided a summary of points that you deem to be of concern to us rather than supplying the report in its entirety. We think that it would have been more appropriate for us to be able to comment on this document in the context of its full contents.

Despite your comments that you consider there to be no adverse impact on operations at Warkworth Airfield, we do not consider that evidence has been provided to substantiate that position. Furthermore, there are several aspects that concern us about your methodology applied in determining there to be no adverse impacts.

Incorrect representation of the runway length

The AIA appears to consider that the operational runway is measured between the launch point facilities located near each end of the runway. These facilities mark the point from where the glider at the front of the launch queue commences its take-off run. As gliders are launched from the front of the queue the point at which gliders commence take-off moves along the queue toward the end of the runway. Landings occur on the length of airstrip prior to this point, with the aim of a landing glider finishing its ground run somewhere close to the take-off point. This minimises the amount of ground handling required. Consequently, the distances the AIA quotes between the runway and the proposed powerlines are significantly understated.

Lack of objective measures to define what is safe or has no impact

The information provided about the AIA appears to apply subjective measures to determine the impact of the powerlines on Warkworth Airfield. This is reflected in comments that gliders would *"reach an acceptable height above the HTP corridor"* with no prior definition of what constitutes a safe or acceptable height or justification as to how such a conclusion is reached. HVGC's position is that objective criteria must be established to provide a fair assessment. As we have noted in our prior correspondence, we consider that an appropriate minimum standard to measure safety impacts is the

Non-instrument Code 1 Obstacle Limitation Surface (OLS) published in CASA's Part 139 Manual of Standards (MOS) chapter 7. A Non-instrument Code 1 OLS has the smallest extent of any CASA defined OLS and HVGC considers it sufficient and suitable allowance for any future uses of Warkworth Airfield to support local aviation activity. The proposed location of the powerlines significantly intrudes above the Code 1 OLS inner horizontal surface, they lie several hundred metres inside the outer extent of that surface, and they present as a significant linear barrier rather than being isolated structures. Our position is that such a significant intrusion of the OLS will impact the safe operation of the airfield.

Incorrect statements about existing powerlines

There appears to be an attempt to justify the safety of the proposed 500 kV powerlines based on the existence of other powerlines close to the airfield with the following comment.

> *"There are other similar transmission lines in the vicinity of Warkworth aerodrome that present similar considerations by pilots and do not limit the operation of the aerodrome."*

Existing 66 kV powerlines are located along the northern edge of the airstrip. These are powerlines that are mounted on timber poles and mostly located below tree-top height in the area. They do not intrude into a Code 1 OLS. To the south-west of the western end of the runway are located single circuit 330 kV powerlines that were recently relocated closer to the airfield as part of Wambo United's mining operation. The maximum height of these towers is about 45 m, and they are mostly contained within surrounding trees. These powerlines do not represent a significant intrusion into a Code 1 OLC. The lightning conductors are also fitted with marker balls to highlight their location. This is contrary to another statement made in your summary that no other powerlines are marked. There are no other powerlines in the vicinity of the airfield that intrude into a Non-instrument Code 1 OLS. We strongly object to the use of the statement that implies 66 kV and 330 kV single circuit towers are similar to 500 kV twin circuit towers, considering that the later are almost twice the height and will be located in open country devoid of surrounding high vegetation.

Lack of consultation with HVGC

EnergyCo and HVGC last had a meeting about the project on 23 February 2024. At that meeting EnergyCo undertook to continue consultation with HVGC including visiting the airfield. EnergyCo also made statements in the Project Scoping Study that it would work with HVGC to minimise impacts on the airfield. Since those statements were made, EnergyCo has made no effort to engage with HVGC to understand our operations and concerns about the project. We find this unsatisfactory and consider that the preparation of the AIA remotely and without consultation has resulted in a report that is biased against HVGC's interests.

No consideration of operations other than gliding

The summary notes indicate that the only aviation situations that have been given consideration by the AIA in assessing the potential impact of the powerlines are a normal glider take off, a take-off of a fully ballasted glider, and a low-level competition finish by a glider. HVGC considers that this does not constitute a sufficient examination of potential impacts. Warkworth Airfield is not only used by gliding operations but is also used for powered flight operations by both CASA and RAAus category aircraft. For the AIA to be a valid assessment it must consider all aircraft operations from the airfield and must

give due consideration to abnormal or emergency situations that are likely to arise. In our previous correspondence HVGC has noted that its principal safety concerns are regarding abnormal situations such as a low-level engine failure of the towing or other aircraft. This aspect appears to have been ignored in the AIA.

Cumulative impacts not considered

The AIA summary appears to indicate that impacts of the proposed powerlines are considered alone rather than cumulative to existing impacts on the safety of the airfield due to local mining operations. The presence of mining overburden at the western end of the airfield has resulted in an increased risk if a launch failure was to occur when taking off to the west, a direction in which there are no suitable emergency landing surfaces. We mitigate this risk when operating in light and variable winds by launching towards the east. This allows access to cultivated paddocks along the Hunter River that are suitable for emergency landing use. The location of the proposed powerlines now reduces the suitability of this mitigation measure. It would be expected that an EIS consider cumulative impacts, and this should be reflected in the AIA.

Visual impacts and general amenity not considered

A shortcoming of the AIA is to apparently ignore the loss of amenity and perception of Warkworth to be a safe airfield to fly at. The proposed powerline location will require the flying of a downwind leg for right hand circuits to runway 28, the base leg of a left-hand circuit on runway 28, and a launch from runway 10 directly towards the powerline. With towers 85 m high that are clear of any surrounding vegetation this is likely to be daunting to low experience pilots. We see that this may create a perception of Warkworth Airfield being an unsafe site or a difficult site to operate from. Consequently, this will reduce the future value of Warkworth Airfield to the aviation community.

Hunter Valley Gliding Club response to the Aviation Impact Assessment

Warkworth Airfield is an important resource for the Singleton LGA community that the Hunter Valley Gliding Club has protected as an operational airfield despite being surrounded by intensive open-cut mining activity. It is important to ensure the development of the 500 kV transmission line as the Hunter Transmission Project does not negatively impact the safe operation of the airfield, nor limit its future use and development to support local aviation.

Considering the issues highlighted above, the Hunter Valley Gliding Club considers that the AIA has not adequately or fairly assessed the impact of the proposed powerlines on Warkworth Airfield and HVGC remains opposed to the proposed powerline location that has been presented to us.

For and on behalf of the committee and members

A Dickson

Andrew Dickson
Director & Safety Officer
Hunter Valley Gliding Club Co-op Ltd