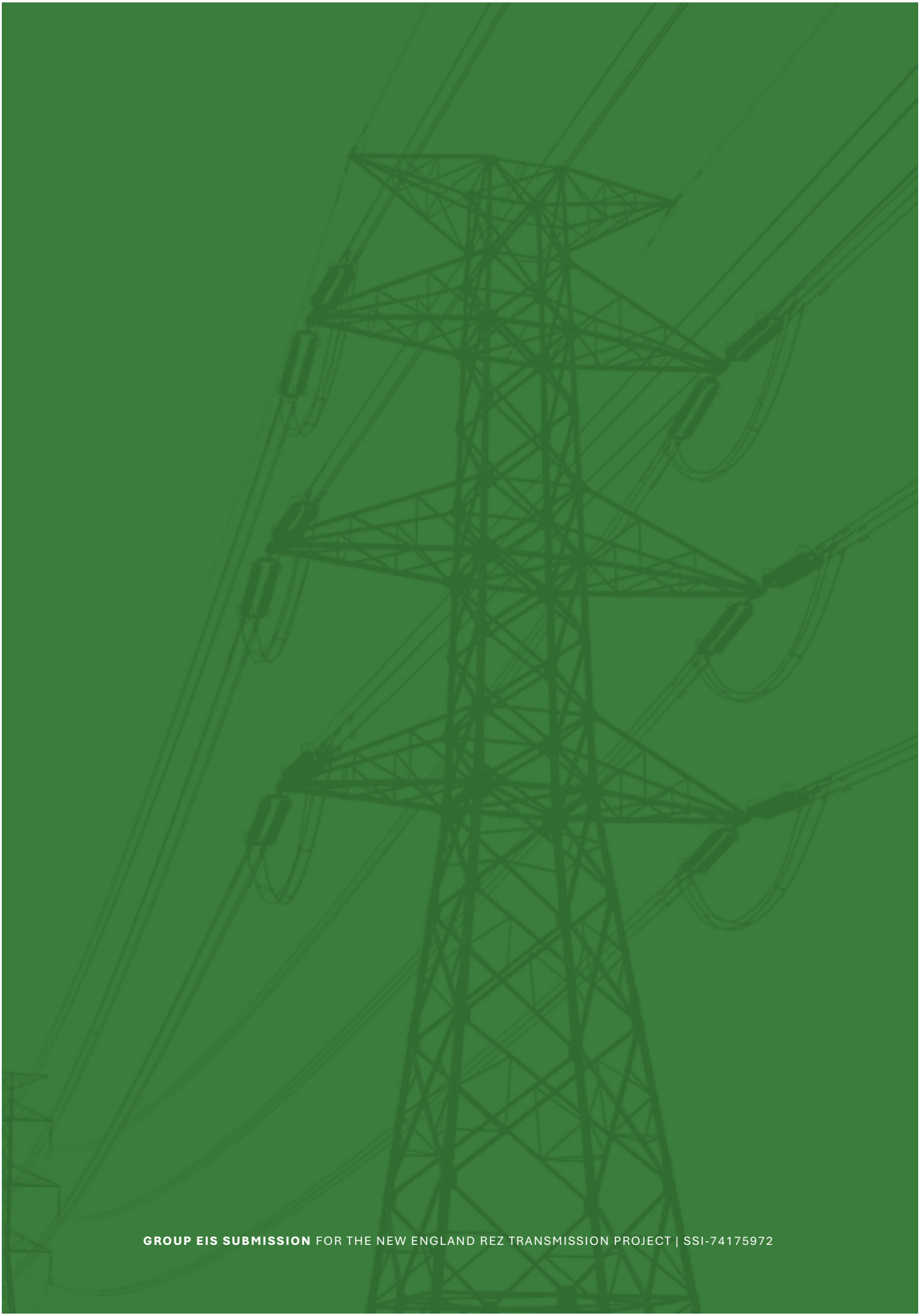
SECTION **6**

Aviation: Agriculture, Private and Tourism

THIS IS **ONE** SECTION OF **TWENTY TWO,**
THAT FORMS PART OF A LARGER GROUP SUBMISSION
TO THE NEW ENGLAND REZ TRANSMISSION PROJECT
SSI-74175972



Walcha High Country Guardians | Rouchel Brook Action Group | Protect the Valley Upper Hunter Responsible Infrastructure Group | Voice for Walcha



GROUP EIS SUBMISSION FOR THE NEW ENGLAND REZ TRANSMISSION PROJECT | SSI-74175972

SECTION 6

Aviation: Agriculture, Private and Tourism



Key issues we have found ...

Essential aerial agriculture is understated

Steep terrain makes aerial fertilising, seeding and spraying essential, yet the EIS understates reliance and fails to quantify production losses.

Airstrip impacts extend beyond owners

Affected airstrips serve neighbouring farms as well as owners, while relocation feasibility, shared access and associated infrastructure remain inadequately assessed.

Drone farming faces unassessed restrictions

Agricultural drones face easement restrictions, interference risks and lost treatment areas, without adequate assessment of operations, navigation, costs or liability.

Wire strikes demand stronger safeguards

New towers and conductors create obstacles for existing flying operations; charting and future notifications alone do not resolve collision risks.

Recreational flying has been overlooked

Private pilots, gliders, balloons and other recreational users need assessment of flight paths, obstacle visibility, emergency landings and construction activity.

Commit to safeguards and compensation

Develop aviation controls with affected users, publish relocation costs and secure enforceable compensation for farms and operators before granting approval.

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Read in more detail >



> Aerial fertiliser spreading is essential on the plateau

SECTION **6**

Aviation: Agriculture, Private and Tourism

The first spreading of fertiliser by air in Australia took place in Walcha in 1950 and since then aerial agriculture has played an essential role in the development and maintenance of one of the most productive agricultural regions in Australia. Walcha is not the only LGA making use of aerial agriculture to be adversely impacted by the NERNIP, as landholders in all regions along the route have indicated their use of fixed wing, helicopter and drone services with relation to agriculture. Aviation enthusiasts, private small plane pilots, aero clubs and aviation tourism are also adversely impacted by the NERNIP.

Please note aerial firefighting is addressed separately.

EXECUTIVE SUMMARY

The New England REZ Network Infrastructure Project would introduce a continuous high-voltage transmission corridor through country where aerial agriculture, private aviation and other low-level flying are established activities. The EIS does not adequately establish the extent of those activities or assess the consequences of introducing new towers and conductors into that operating environment.

The principal deficiencies identified in this submission are:

- EnergyCo has not demonstrated adequate consultation with affected landholders, aerial service providers, agricultural drone operators, private pilots or community aviation groups.
- The agricultural assessment understates the practical importance of fixed-wing, helicopter and drone operations in steep and difficult country and does not adequately assess the loss of efficiency, production or access created by the transmission corridor.
- The aviation assessment identifies numerous uncertified aerodromes but does not adequately resolve impacts on affected strips, neighbouring users, associated infrastructure or the consequences of relocation.
- Agricultural RPAS operations are materially under-assessed, including the application of CASR Part 101, easement restrictions, electromagnetic interference, navigation risks and interaction with manned low-level aviation.
- Wire-strike and low-level aviation risks require substantially greater weight. Publication on charts and future notification do not by themselves resolve the risk created by new obstacles in an environment used for aerial application and other low-level flying.
- Mitigation, airstrip changes, marking, construction-phase controls, compensation and other measures are repeatedly deferred or described without sufficient plans, costings or enforceable commitments.
- The EIS should not be relied upon for determination until these matters are properly investigated, the affected aviation community is directly engaged, and the necessary mitigation and compensation measures are demonstrated and assessed.

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1 | Why aviation matters in this region

Aviation is not an incidental land use in the project area. It supports agricultural production, private and recreational flying, emergency access, rescue and recovery, and local aviation activity. The following material explains why the local operating context matters to assessment of the proposed transmission corridor.



> Figure 1 - **Aerial spreading of fertiliser is a crucial means of fertiliser distribution in the New England, especially in steep terrain. Airstrips are located on strategically important flat areas in the topography. They cannot easily be relocated.**

2 | The EIS has not adequately assessed existing aviation activity

2.1 Consultation with landholders

Energy Co has failed to engage with landholders across the board with regards to the impact of the NERNIP and especially so with regards to aviation. Energy Co has had detailed mapping and feedback from their "local aerial provider" consultant which they could have used to communicate with affected landholders. 67 uncertified aerodromes have been identified by Energy Co with15 classed as having major impact and a further 19 with moderate impact. Landholders of all air strips should have been engaged with, especially those whose strips that are deemed unusable.

Also – given the terrain of the associated area and the limited space for safe airstrips and the regions reliance on aerial agriculture, neighbours to airstrips (who often share the strip usage) should also have been engaged with to assess the impacts on them. Consultation with regards to agriculture lists 2 interviews, both from the same region, and well away from the high rainfall / high fertiliser use area of the Nundle and Walcha plateau. Given the diversity of agricultural practice along the NERNIP route, this is an act of gross negligence by Energy Co. Landholders were not engaged to assess the types nor frequency of the aerial agriculture that they use and the impacts that the NERNIP will have on their businesses. Landholders were not engaged with to negotiate planning for mitigation measures with regards to their requirements of aerial agriculture.



> Figure 1 - **Aerial fertiliser spreading in action**

2.2 Consultation with aerial service providers

Energy Co have stated that they consulted with one local aerial service provider to identify and assess uncertified aerodromes (page 39 of Technical Report 11- Aviation). This is insufficient consultation to cover the diversity of aviation that is impacted by the footprint of the NERNIP. The NERNIP EIS identifies 67 uncertified aerodromes, of these no reports are published in the NERNIP. The assumption made from reading the NERNIP EIS is that the consulted service provider operates with fixed wing as assessment has

been made of uncertified aerodromes. There is more than one aerial (fixed wing) service provider servicing the NERNIP and all should have been consulted.

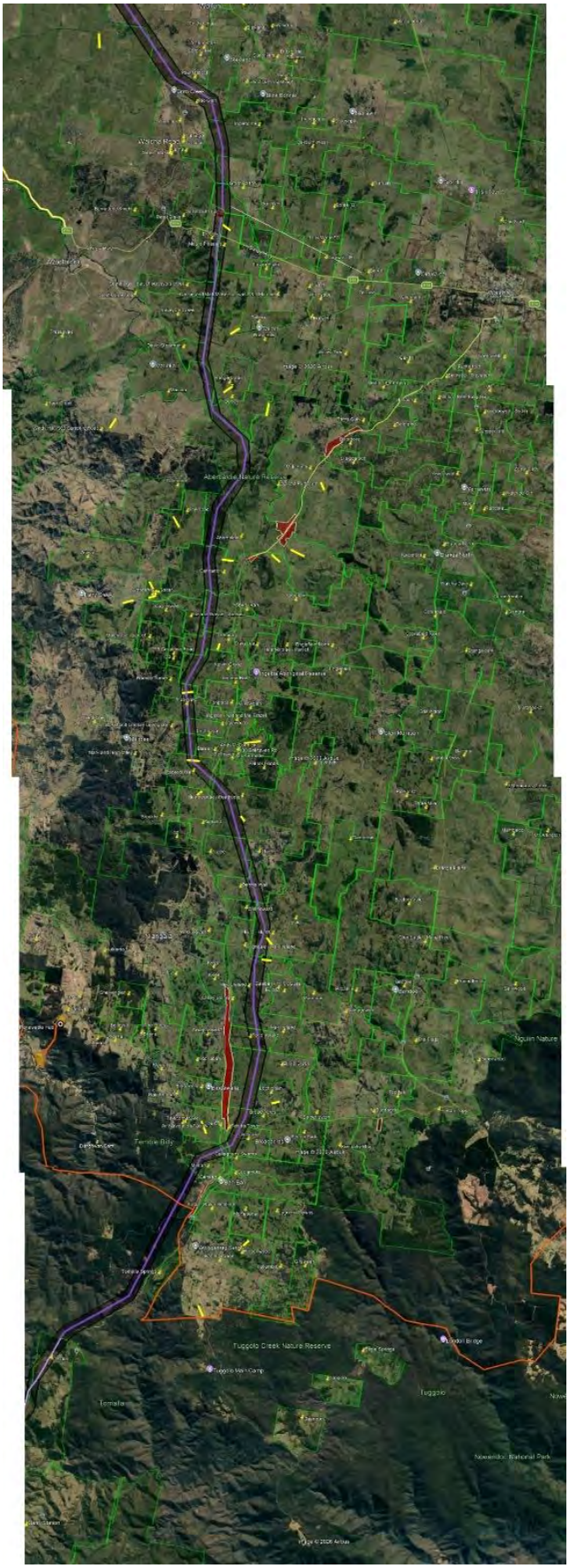
The EIS and supporting documents show no engagement with helicopter and drone agriculture service providers to ascertain the impact on their capabilities and hence the required mitigation measures for these businesses are also missing from the EIS. This is critical, as helicopters and drones work in different areas (where airstrips may not be available due to steep terrain).



> Figure 2 - **Helicopter being used to spread fertiliser in steep terrain along the transmission line (Property "Osland")**

2.3 Consultation with community aviation groups

There is no evidence in the EIS or Technical Report 11 – Aviation of any communication by Energy Co with community aviation groups. Given that aero clubs, aviation tourism and aviation sports all exist in communities impacted by the NERNIP these clubs and groups should be engaged with to ascertain the impacts on their activities. Clubs outside the NERNIP communities also exist that may be impacted by the transmission lines such as (but not limited to) parachuting, gliding, paragliding and ballooning



2.4 Mapping and information provided to affected users

Maps utilised in the NERNIP EIS with regards to aviation are not of a high quality nor are they of a consistent format between Technical Report 6 – Agriculture and Technical Report 11 – Aviation. Landholders have had difficulty identifying their air strips from the maps provided. Neighbours who make use of air strips have also found it difficult to identify strips that they use.

2.5 Consultation outcomes and design response

Energy Co states in Technical Report 11 - Aviation that a "*range of different tools and consultation activities have been used to provide information to the community and other stakeholders to provide opportunities for feedback including letters delivered to directly affected landholders. The letters sent out to landholders included sketch plans which identified known local airstrips (uncertified aerodromes).*" *Page 33* yet landholders state they have received no such communication that specifically refers to their airstrips. Given that fifteen airstrips have been assessed as having a major level of impact and a further nineteen at a moderate level of impact this lack of communication on Energy Co's behalf is negligent. Assessment procedures and results should have been published in the NERNIP EIS for scrutinisation. Energy Co have failed to identify any amendments to planning made after consultation with the local service provider and no explanations are provided for their unchanged plans.

> Aerial photo showing properties, and private airstrips in yellow, in close proximity to the proposed transmission corridor. Many of these are impacted directly by the presence of the proposed line, and would be put out of service.

Additionally, no consideration has been made by Energy Co in the NERNIP EIS regarding any infrastructure associated with impacted airstrips, such as hangers, water tanks, fertiliser dumping points and chemical storage facilities.



> Figure 3 - **Earthworks for preparation of second Hangar construction on Cannabri**



> Figure 4 – **Original Completed hangar, with site for second hangar in the background**

3 | Aerial agriculture - impacts on agricultural production

3.1 Regional practice and the importance of aerial agriculture

b. Lack of direct knowledge of best agriculture practice for associated regions

Page 64. Technical report 6 – Agriculture:

> *"Aerial agriculture is not intensively used in the operational area, as aerial applications are less frequent in smaller scale cropping enterprises and grazing situations than in irrigated crops such as rice and cotton. Despite this, some weed control and fertiliser applications would be undertaken by air."*

And further stated on Page 64. Technical report 6 – Agriculture:

> *"The frequency of the use of these airstrips has not been determined, although the use of aerial agriculture around the operational area is not high."*

With no assessment of frequency how can a statement such as this be made?



> Figure 5 - **Aerial spreading of fertilizer is the primary mode of spreading in areas that are hilly and high rainfall, where ground spreading is dangerous, or simply unable to be done.**

Intensity of use should not be a measure to degrade the use of aerial agriculture in the NERNIP region. Department of Primary Industries August 2020 Snapshot of the Northern Slopes and Tablelands *states*

> *"The Northern Slopes and Tablelands beef enterprises deliver the highest gross value of beef to NSW of any other region of $563.9m (ABS 2015/16)."*

2020/21 Ag Track data lists the Walcha LGA as the 8th highest producer of Beef in NSW of 95 regional LGAs.

Aerial fertiliser spreading is an essential and efficient way to boost pasture production along most of the route to ensure the quality and quantity of beef that is an essential commodity of NSW's economy. Energy Co identify 67 uncertified aerodromes in Table17.2 page 649 of the NERNIP EIS within 10 km of the project.

With fifteen uncertified aerodromes assessed with major impacts Energy Co has done nothing to assess loss of production due to inability to use these uncertified aerodromes or the additional costs of changed flight paths and loss of efficiency as aircraft need to bounce over transmission lines much higher than the lines common to the district.

Add to this the lack of assessment for the 19 strips that have a moderate impact and the impact on aerial agriculture on neighbouring properties that don't have uncertified aerodromes and the negligence of Energy Co's lack of planning and engagement is compounded.

Fertiliser spreading is not the only practice put in jeopardy by the transmission line path. Landholders also make use of aerial weed spraying, seed dispersal and feral pest management, all essential agricultural practices for best production results. Rugged and steep terrain, areas of swamp and large rocks and weather patterns all drive the necessity for aerial agriculture as on ground practices are either to dangerous, not possible at all or not as economically efficient. Often airstrips are placed on the only available space to do so, and they are often used by nearby neighbours along with the owner.

Again, on Page 64. Technical report 6 – Agriculture:

> *"Drones can also be used for mustering and livestock monitoring, while their use for pesticide spraying is being developed."*

Is a statement demonstrating the vast ineptness of Energy Co and their consultant for this document and further evidence of a significant lack of local consultation.

Drone use for pesticide and herbicide spraying is well developed and is utilised by many farmers along the transmission line route and while landholders have indicated that they make use of drones for livestock monitoring, they are not used extensively for mustering, especially in this region. Drones are also used for fertiliser spreading and seed dispersal, to monitor water points and general property infrastructure such as fence lines. As previously stated in this document no engagement has been made with local drone operators to ascertain impacts and necessary mitigation measures with regards to agricultural drone work. Drone usage is growing in demand as a cost-effective method of targeted practice of fertiliser application, weed management and seed dispersal. For whole property distribution fixed wing and helicopters remain the most efficient tools.

3.2 Agricultural impact assessment methodology

The LUCRA (Land Use Conflict Risk Assessment) detailed in Technical Report 6 – Agriculture is averaged across land use types and practices across the entire footprint of the NERNIP. Inadequate representation of regions requiring aerial agriculture skews the findings and needs to be rectified.

Biophysical strategic agricultural land (BSAL) mapping was instigated to assess and protect agricultural land from mining and coal seam gas projects. BSAL assesses *"levels of soil fertility, land and soil capability classes and access to reliable water and rainfall levels."*

Missing from BSAL's assessment is the production capacity and economic output of agricultural land. Given the history of high-performance agricultural output of the land surrounding the NERNIP a BSAL assessment is insufficient to assess the impact on agricultural output. As aerial agriculture is integral to the high-performance outputs the restrictions placed on aerial agriculture will have significant impacts on output.

Property value also gives a valuable indication to agricultural outputs, and this isn't used as an assessment tool in the NERNIP.

3.3 Route selection and positioning of infrastructure

> *"The project has been designed to avoid and/or minimise potential impacts to land use and property, consistent with the planning pillars and principles that have guided the iterative route selection .... It is acknowledged that in some locations, competing land uses, property and technical constraints are present. At these locations a balanced approach to corridor planning is required to determine the most appropriate project alignment, while minimising impacts on land use, property and the environment during construction."*
>
> > Source: Pages 494 - 495 NERNIP EIS

The initial selection of the 3km route, and the narrowing of the initial 3km study route to the current design has not demonstrated a *consistent* approach to minimising impacts to land use, especially with regards to aerial agriculture.

3.4 Case Study – "Gula Grazing" – Flight path conflict

The importance of the Gula Airstrip

The Airstrip at Gula services not only their own property, but 8-10 neighbours around the area. Like many airstrips, it is a critical piece of infrastructure for the properties and businesses around that areas. Each year, 2,000T of fertiliser is flown off that strip each year, 500T to one neighbour alone, who has not been recognised in this EIS assessment at all.

The production return from this fertiliser is substantial, and the loss of this ability to spread fertiliser, as a result of this strip being put out of action, is immense.

This example highlights the extend of the reliance of these airstrips, not only for the property that the strip is located on, but for neighbours who rely on its use also.

What is the earning capacity today - with pastures sown, and using fertiliser?

In its current state, with perennial grasses sown, and with 150kg of fertiliser being applied each year, this country is rated at being able to carry 20-25 dse (dry sheep equivalent) / Ha. This equates to around 3 dry cattle, or steers/heifers. Typically, these are introduced at 240kg, and carried to 500kg over the 12 month period, and sold on todays market at $5.50. That is, 260kg gain, at $5.50, across 3 steers / Ha

The Gross Margin on this enterprise is in the order of $1430 per steer, or $4,290 per hectare.

Costs of Fertiliser

Fertiliser is applied at a rate of $150kg/Ha, giving 15 units of Phosphorus, and includes Sulphur.

The cost of fertiliser, delivered, is around $500/T

The cost flying it out across this country, at a rate of 150kg/per hectare, can be generalised at $35/Ha, or $200/ T

The total cost of fertiliser, applied, is $700/T, or $105 / Ha.

Production levels without fertiliser

Without fertiliser use, there is a loss of one third of this production immediately, with a loss of up to 50% over time as pasture base is lost. This is supported by a number of studies.

Source	Trial description	Time without Fert	Main Result
O'Connor, Smart & Ledgard — Te Kuiti, New Zealand, 1990	Established hill pasture previously receiving 250 kg superphosphate/ha/year for ten years. Continued fertiliser compared with cessation.	Seven years	15 ewes/ha with fertiliser and 11 without: a 27% reduction
Lambert, Clark & Mackay — Ballantrae, New Zealand, 1990	Approximately 1,200 mm rainfall.	Seven years	measured results estimated 32% less pasture production in the previously high-fertility treatment
Dodd & Ledgard — Te Kuiti and Whatawhata, New Zealand, 1999	Longer follow-up of two fertiliser-withholding experiments.	15 years	Pasture production was 31% lower on average, with losses of 22–42%
McBride, Nguyen & Rickard — Winchmore, New Zealand, 1990	Productive irrigated grass–clover pasture, with fertiliser stopped after 25 years of annual superphosphate.	One to six years	pasture production fell 10% in year one and 28% in year two
Smith and colleagues — Winchmore, New Zealand, 2012	Long-term analysis of irrigated grass–clover pasture where superphosphate had stopped after six years of applications.	22 years	pasture retained 46–59% of the production of the continuously fertilised comparison: 41–54% less production

What is the cost of this lost production?

In addition to loss of dry matter production (production of grass), there is a loss of clover and other medic content in the pasture, diminishing perennial grass health, and ultimately quality and composition of the pasture. This is a loss that accumulates, as the pasture base fails over time.

As such, it is not just a loss of steer weight gain, but a loss of enterprise flexibility. The new business, losing the ability to fertilise, does not fatten cattle, they start to background them. They are not selling prime livestock, they are selling store stock. They are performing well below potential – and that costs a business owner when you borrow to buy country for it's potential.

Gross margin comparison – terminating Fertiliser use.

On a per hectare basis, if fertiliser use is terminated,

- costs are reduced by $105/Ha, but
- earnings are reduced, ultimately, by 50% of $4,290 per hectare, or $2,145

Nett result is a loss of $2,040 per hectare - from loss of fertiliser application alone.

Why not apply by ground?

This has to be noted, as someone in a Sydney office may not be aware of the background. The country is inaccessible by ground spreading machinery. It is steep, rocky, and often far too wet. The combination of these factors makes it inaccessible, and rules out ground application.

Why not use another strip?

The nature of the country does not allow a strip to be relocated easily. The naïve offer from Energy Co to do so, highlights the lack of understanding of the country they are proposing to build a transmission line through. The fact that 8-10 businesses are using this one strip is not a story of convenience, it is because the installation of a strip is complicated and difficult. Finding a suitable site is not easy in this topography.

What does this mean for the case study at Gula?

The estimated 2,000T of fertiliser that is flown off the strip at Gula, supports production across approximately 13,300 Ha of country, over a number of businesses.

In all, this supports additional productive capacity, as a result of fertiliser application, of $27,200,000

($2,040 of production lift, across 13,300 Ha).

$27,200,000 of productive capacity will be lost, annually, with the elimination of the Gula Airstrip alone.

Is Gula REALLY going to be taken out of commission?

The following photos show an aerial ag. pilot spreading fertiliser, working from the Gula Strip.



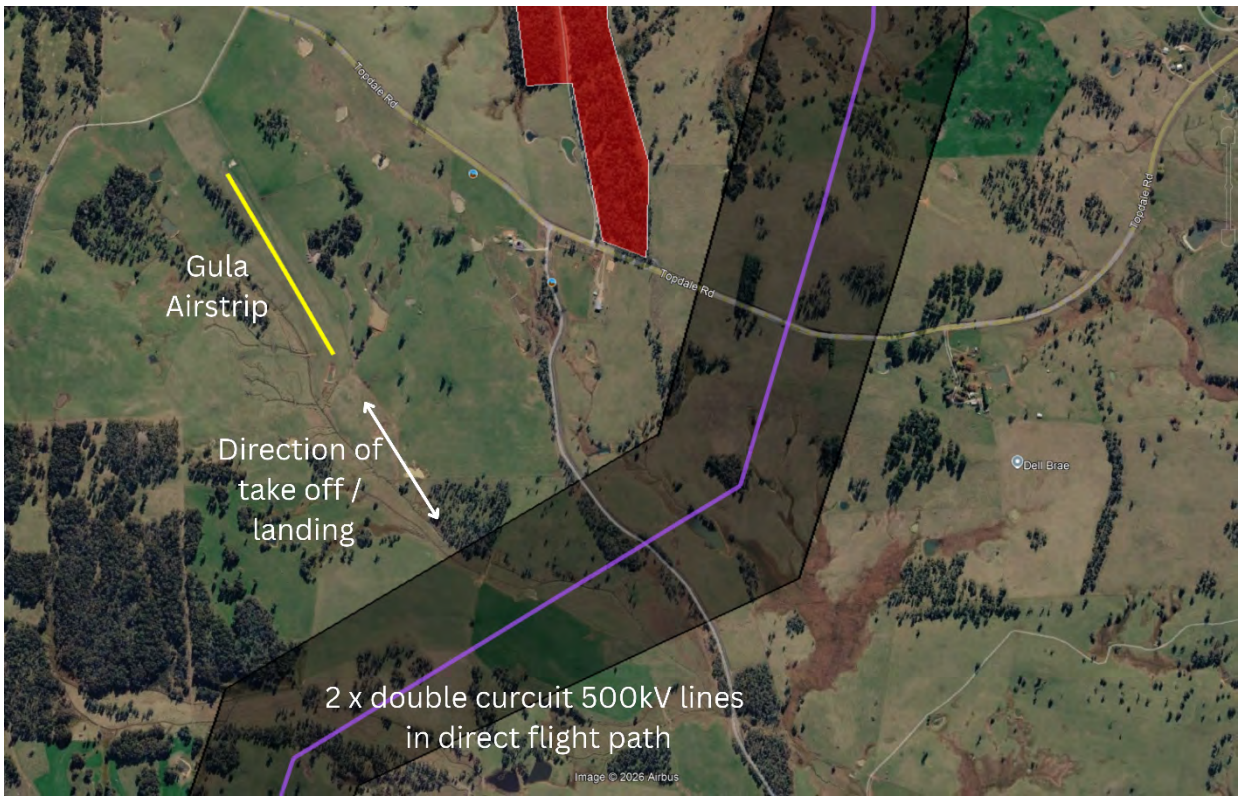
> Figure 6 - **Fertiliser spreading plane returning to land on, and taking off from, the Gula Airstrip. This is in the immediate area of the proposed 2 x 500kV Transmission lines.**

Given this backdrop, it was of particular interest to view the proposed outlook and viewpoint for the transmission lines that run directly in the flightpath of the Gala airstrip. This is shown below.



> Figure 7 - **Viewpoint of the proposed transmission lines, in the area in front of the Gula Airstrip, in the same location as the phots shown earlier of the fertiliser plane working from the strip.**

It is clear that the Gula airstrip is completely unusable, given the location of the proposed transmission line. Planes are unable to take off in the NW direction, due to topography. They will be unable to take off in the SE direction, due to transmission lines.



> Figure 8 – **Sat Photo of Gula airstrip, showing location of proposed transmission, and the forced flight path SE (downhill) from the strip.**

Local topography limits alternative locations for a strip.

Hilly country must use the slope of the land to shorten the length of the airstrip. This downhill run shortens the required runway length. As a result, all runways will use the shallow valley as a necessary flight path. This is precisely where the proposed transmission line is occupying space.

This eliminates the possibility of relocation of an airstrip on Gula, or any nearby land.



> Figure 9 - **Gula airstrip in the foreground, runs downhill into the proposed transmission line. Any available options for alternate strip locations, in the limited topography available, and needing to run downhill to obtain take-off windspeed, will do the same.**

3.4 Mitigation, cost and compensation

There are no costings listed in the NERNIP EIS associated with the impact or mitigation measures required with respect to aviation practices. Words such as “should”, “where feasible”, “may”, “compensation”, “management plan” are inadequate at this point of planning. The NERNIP EIS’s timing of mitigation measure planning at the detailed design phase doesn’t allow for appropriate feedback or sound economic critique.

Given the previous case study, as a single example of many, this is a massive omission.

4 | Aviation safety and wire-strike risk

The proposal adds large new obstacles to a landscape already used for low-level agricultural and private flying. The evidence below addresses the adequacy of EnergyCo's treatment of flight routes, operating heights, visibility and wire-strike risk.

Energy Co's reporting admits to limitations due to the report relying on publicly available data with respect to aviation practices in the NERNIP zone. As much of the impacted flying in the NERNIP zone is based off uncertified aerodromes by private operators Energy Co should have engaged with a variety of service providers, landholders and private pilots to better ascertain the routes, operating heights and required safety implementations to ensure all aviation participants return home safely and that aerial agricultural practices can operate at optimum efficiency.

The Walcha plateau is renowned for low clouds and fog; this is especially dangerous for pilots flying from west to east (and vice versa) toward and over the Walcha plateau and they must adjust appropriately to cater both for their machine's altitude ability and instrumentation and meteorological conditions. Pilots in smaller aircraft without instrumentation rely on visual flight lines and are allowed to drop below prescribed flight altitude if impacted by meteorological events. Although the transmission lines, towers, construction cranes and MET towers associated with development are all under CASA's height restrictions for safety devices, consideration should be given to the type of aircraft common to the project area and to the extensive obstacle that the transmission line poses, especially in unclear weather and for west to east (and vice versa) flight paths.

Efficiency of aerial agricultural practice has not been adequately assessed especially as helicopter and drone services have not been assessed at all. Impact on air traffic routes for efficient aerial agriculture practice have also not been reported. Changes in flight lines for aerial agriculture are going to be impacted and along with the required bump over the proposed lines efficiency of practice is going to be lost and costs are going to be greater, given that Energy Co declares that uncertified aerodromes have been assessed, that assessment should have been published and mitigation measures along with costings and compensation for these aerodromes should have been specified. Likewise, costings for aerial agriculture requirements for those who have made use of aerodromes now deemed unusable have not been published. Users of these aerodromes are going to incur additional costs as they will need to use facilities at a further distance.

The additional risk posed by the proximity of the NERNIP to most of the assessed uncertified aerodromes is downplayed by this statement

> *"Aerial application pilots undergo comprehensive training in low level flight operations, taking-off and landing fully loaded aircraft on short, undulating airstrips that are significantly below the normal aerodrome standard conditions, and often in close proximity to trees, buildings, transmission lines and wind farms."*
>
> > Source: Page 52: Technical Report 11 – Aviation.

While it is certainly true that aerial application pilots are extraordinary, the leading cause of accidents for the sector is wire strike:

The number of wire strike accidents rises and falls: 2016 was a bad year with 14 accidents, 6 of them involving helicopters. Those 14 accidents resulted in one death and 11 injuries. There were 10 accidents in both 2018 and 2020, while in 2021 and 2022, there were fewer deaths but a higher number of incidents.

During the 2012–2022 decade, 307 wire strikes were reported. Eleven of these involved drones.

- Of the other 296, 217 (73%) occurred while aerial work was being conducted.
- Of the 217 aerial work wire strikes, 194 (89%) occurred during agricultural spraying or spreading. [1]

Table 1: The breakdown of occurrences across the sector. Source: ATSB occurrence database (2014 to 2023)

Occurrence category	Mustering	Spreading/spraying	Other agricultural	Total
Fatal accidents	7	9	1	17
Total accidents	71	92	12	175
Serious Incidents	9	185	1	195
Incidents	10	59	6	75
Total	90	336	19	445

[2]

Sources for survey safety material (this page and next page)

[1] https://www.flightsafetyaustralia.com/2023/07/one-strike-and-youre-out/

[2] https://www.casa.gov.au/operations-safety-and-travel/safety-management-systems/sector-safety-risk-profiles/agricultural-flying-sector-safety-risk-profile/sector-safety-performance#Accidentspermillionflyinghours

[3] https://www.casa.gov.au/operations-safety-and-travel/safety-management-systems/sector-safety-risk-profiles/agricultural-flying-sector-safety-risk-profile/occurrence-types#undefined

The most common occurrence type for accidents and serious incidents over 10 years were:

- collision with terrain: 146 incidents and accidents
- loss of control: 62 incidents and accidents
- wirestrikes: 187 incidents and accidents.

See Figure 3 for the top 10.

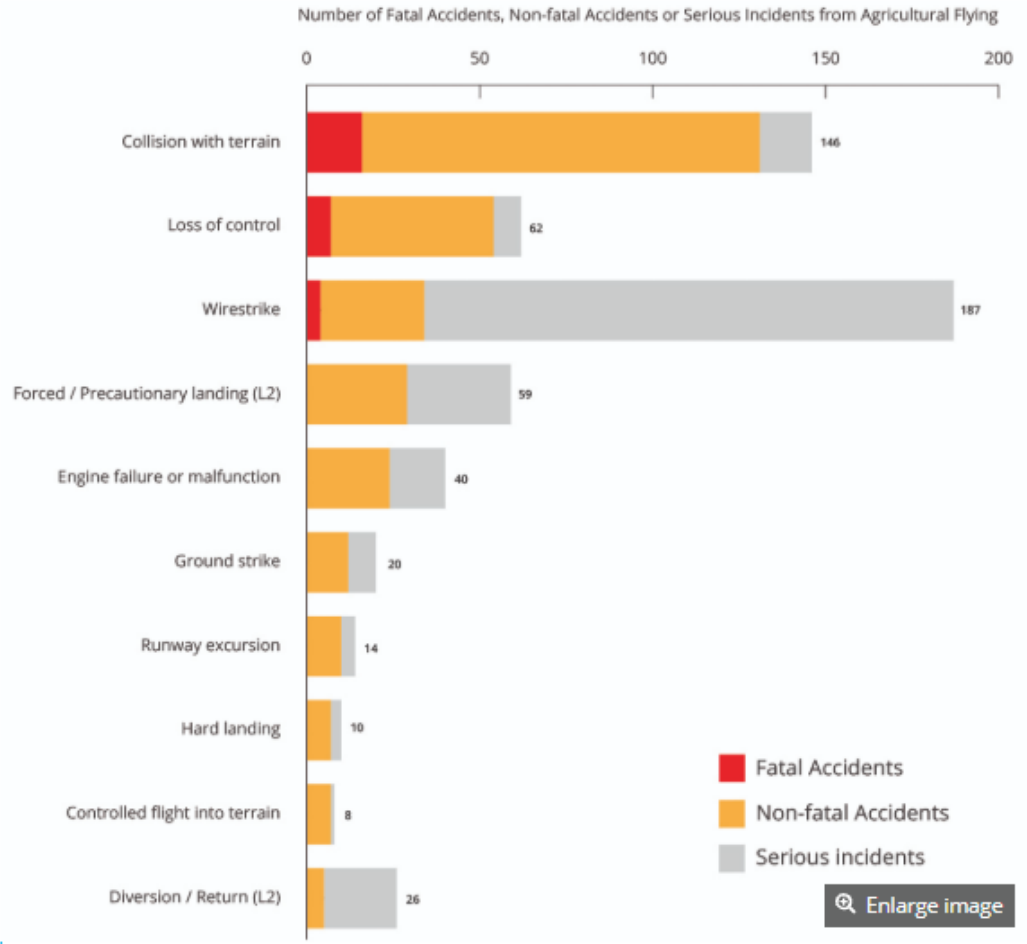


Figure 3: Top 10 most common occurrence type for accidents and serious incidents over 10 years

Published date: 24 January 2025

> Figure 10 - Source CASA - https://www.casa.gov.au/operations-safety-and-travel/safety-management-systems/sector-safety-risk-profiles/agricultural-flying-sector-safety-risk-profile/occurrence-types#undefined

[3]

The NERNIP plannings lack of consideration to highly trained aerial service providers is negligent and when you consider that many of these uncertified aerodromes are also used by private pilots who do not have either the experience nor machinery of the same capability as aerial service providers the lack of care and appropriate planning to avoid uncertified aerodromes is abhorrent.

5 | Agricultural drones - a material omission from the EIS

Agricultural RPAS operations raise distinct regulatory, operational and technical issues. The following two operator reports are retained as first-hand evidence. They should be read as operator accounts rather than rewritten into the main submission.



> Figure 11 - **An agricultural drone operating in a Blackberry spraying capacity**

5.1 Operator Report 1 - Technical critique of the aviation and agricultural assessments

Key Points

NE REZ EIS – Technical Report 11 (Aviation Impact Assessment) and Technical Report 6 (Agricultural Impact Assessment)

These comments are provided from the perspective of a landholder and an agricultural RPAS (drone) operator working on properties within 10 km of the proposed line west of Walcha.

1. Agricultural drones are not assessed

Technical Report 11 mentions drones only as equipment used for construction and maintenance (line stringing and tower assembly). Its definition of an "Aerial Application Operator" (a person or company required to hold a commercial pilot licence, an agricultural rating and a chemical distributor's licence) does not cover ReOC-based agricultural RPAS operators. In my experience these are now a common form of aerial application in the district.

Technical Report 6 (Agricultural Impact Assessment, s6.7) says that the use of drones "for pesticide spraying is being developed". This understates current practice. Agricultural spray and spreading drones are an established commercial service operated under CASA ReOCs, including my own operation in this district.



> Figure 12 - **Drone being used for visual observation of livestock and water points across steep and inaccessible country.**

2. Technical Report 11 does not consider Part 101 (unmanned aircraft)

Technical Report 11 lists the regulations and standards it was prepared with consideration of (s1.3 and References): the Civil Aviation Regulations, the Civil Aviation Safety Regulations 1998 (CASR), the Part 91, Part 139 and Part 173 Manuals of Standards, Advisory Circular AC 91-10 and NASF Guidelines F and G. Neither CASR Part 101 (Unmanned aircraft and rockets) nor the Part 101 Manual of Standards is referenced anywhere in the report. The only reference to the regulation of drones is the statement that drones used for stringing "will be operated in accordance with the applicable CASRs for their operations" (measure AS4).

Part 101 and its Manual of Standards are the rules that govern the agricultural RPAS operations most exposed to the line. They set the remote pilot licensing and ReOC requirements; the prohibition on hazardous operation, an offence of strict liability (reg 101.055, see concern 6); the RPA no-fly zones and approach and departure paths around non-controlled aerodromes, including agricultural strips (MOS Division 9.1, see concern 9); and the training and examination of remote pilots on powerlines and electromagnetic interference (MOS Schedules 4 and 5).

Similarly, the report does not reference CASR Part 137 (aerial application operations by aeroplanes), although aerial application is the main aviation activity assessed in its Table 8. It notes that flight below normal minimum heights is permitted "such as aerial application" without identifying the regulations under which that work is conducted. Part 138 is mentioned only in the peer review, in relation to aerial firefighting.

Because Part 101 was not considered, the assessment could not identify the constraints on drone operations described in this response: the operator's liability for working near the line, the effect of airstrip relocation on drone no-fly zones, and the interaction between manned and unmanned agricultural traffic.

> REQUEST TO ENERGYCO

Extend the regulatory review in Technical Report 11 to CASR Part 101 and the Part 101 Manual of Standards (and Part 137), and reassess impacts on agricultural aviation against them.

3. Agricultural impact is assessed only at airstrips

Table 8 of Technical Report 11 rates impacts by reference to take-off, landing and circuit operations at each strip. Low-level application work over paddocks near and under the line is not assessed.

For drone operators, who do not need a strip, the paddock is where the impact falls. Under the report's method, a property without a strip shows no impact even when it depends on aerial application.

Technical Report 6 (s6.7) also notes that "the frequency of the use of these airstrips has not been determined". The usage information in this survey response is provided to help fill that gap.

4. Properties that depend on a neighbour's strip have no defined role in mitigation

For majorly and moderately affected strips, Technical Report 11 proposes consultation with "owners and operators", an Uncertified Aerodrome Management Plan or a Property Management Plan prepared with the landholder, and possible funding of the cost difference to an alternative method.

It is not clear whether neighbouring properties that depend on an affected strip, or the contract operators who service them, are included. We have no airstrip of our own and depend on the goodwill of the owner of strip 18381 (rated Moderate). A one-way restriction, fewer usable wind days or relocation of that strip could raise topdressing costs or make it unavailable to us. Topdressing operators would likely operate from another suitable landing area, so any increase in ferry distance or weather constraint adds direct cost.

The property management plans in Technical Report 6 (measure AG3) apply to properties within the construction disturbance footprint, not to neighbouring properties or contract operators whose work is affected.

> REQUEST TO ENERGYCO

Confirm whether neighbouring properties that rely on an affected strip, and the contract operators who service them, will be consulted and considered in Uncertified Aerodrome Management Plans.

5. Drones are not a substitute for fixed-wing topdressing, and ground application is not a substitute for aerial work

Technical Report 11 refers to funding the cost difference to "a reasonable alternative method". If unmanned aircraft are considered such an alternative for displaced manned operations, in my professional view they are not a practical substitute for bulk fertiliser topdressing over large areas. Drone operations near the line are also constrained themselves (see concerns 6 and 7).

Technical Report 6 (s6.7) accepts that areas unable to be treated from the air would have to be treated on the ground, which is "less efficient, less timely and more costly in most cases", and that "some steep or inaccessible areas … may not be able to be treated effectively by other methods". Much of the land we work in this area is steep grazing country where aerial application is the practical option.

6. Electric and magnetic fields are a hazard to drones, not just a physical obstacle

Technical Report 11 treats the line only as a physical obstacle to see and avoid. Its interference assessment covers only air traffic radar, navigation aids and communications.

High-voltage lines produce strong electric and magnetic fields (EMF) around the conductors, and can generate radio noise. A drone's compass/magnetometer, GNSS/RTK positioning, command-and-control link and obstacle-detection systems can be affected, which can cause erratic behaviour or loss of stability. Network operators recognise this: Powerlink and Transgrid both advise drone pilots to move away and land if a drone shows "erratic behaviour" near their infrastructure.

EnergyCo's own fact sheet (Electric and magnetic fields, October 2025) states that "Transmission lines of 330kV and 500kV generally emit 10-50mG at the edge of a high voltage transmission line easement and 20-200mG directly underneath". Directly under the line, that is a meaningful fraction of the Earth's magnetic field (roughly 550–600 mG in this region), which is what a drone's compass relies on.

Published separation guidance is inconsistent. Technical Report 6 (s6.7) recommends approximately 30 to 45 metres, citing a 2020 general drone-safety article from Indiana Electric Cooperatives (USA), not an Australian regulatory source. Powerlink recommends a minimum of 6 metres. EnergyCo and Transgrid prohibit drones within easements altogether (see concern 7).

CASA recognises this hazard. The Part 101 Manual of Standards requires remote pilots to be trained and examined on "electromagnetic interference (EMI)" and "powerlines" (Schedule 4, Unit 4 REES, item 9, a Priority B topic). It also requires pilots to show awareness of powerlines as a non-weather hazard (Schedule 5, Unit 18 RNT, item 2).

Wire strikes by agricultural drones are already occurring in Australia, and the consequences go well beyond the loss of the aircraft. On 29 January 2025 at Nangkita, east of Mount Compass (SA), a DJI Agras T50 spray drone reportedly struck a powerline while spraying a dairy paddock. The drone was destroyed, power to the area was lost, and the resulting grass fire burned about 8 hectares and came within about 50 metres of a house. The CFS attended with around 35–40 firefighters and six aircraft and reported that the fire was believed to have been started by the drone bringing down the line (Victor Harbor Times, 30 January 2025; Aviation Safety Network record 474183).

On 10 June 2026 at Wasleys (SA), a contractor's spray drone struck a powerline and brought down a high-voltage line, cutting power to 58 customers for more than three and a half hours. SA Power Networks then issued a public warning about agricultural drones near powerlines, noting that strikes could cause serious harm to the operator or start fires (Plains Producer, 12 June 2026; Barossa Leader, 17 June 2026).

Both incidents involved distribution lines rather than 500 kV transmission lines, and I am not aware of any ATSB investigation of either. They show, however, that a drone wire strike can cause outages and start fires, which is why operators must keep a wide margin from lines whose position, sag and field effects are not precisely known.

CASR regulation 101.055(1) (Hazardous operation prohibited) provides: "A person must not operate an unmanned aircraft in a way that creates a hazard to another aircraft, another person, or property." This is an offence of strict liability (reg 101.055(3A)), so the onus falls squarely on the operator. Where guidance is inconsistent and line-specific data is not available, a responsible operator must apply conservative standoff distances. In practice, that takes land near the line out of drone application work, an impact Technical Report 11 does not recognise.

> REQUEST TO ENERGYCO

- Provide the project-specific EMF modelling for the line (magnetic and electric field strengths at distance from the conductors and at height, not only at ground level).
- Provide final design data, so operators can set evidence-based standoff distances rather than overly conservative ones.

7. Drones are prohibited within the easement

Technical Report 6 (s6.7) states that "EnergyCo's guidelines indicate that flying drones is not permitted within transmission line easements". EnergyCo's "Living and working near transmission line easements" web page confirms this: it lists "flying kites or any remote controlled or unmanned aerial vehicles (such as drones)" among activities not permitted in easements. Transgrid's October 2024 fact sheet likewise states that drones are "Not allowed within or over the easement of transmission lines".

A dual 500 kV easement is typically about 140 m wide (Technical Report 11, s1.2). The prohibition therefore removes a continuous strip of land along the line from drone application altogether, plus any additional standoff distance needed outside the easement.

By contrast, EnergyCo permits cropping up to 30 metres from the base of a transmission structure, and its web page states that "aerial activities can continue in the vicinity of transmission lines". Ground-based farming can continue across most of the easement, but agricultural drone application cannot.

> REQUEST TO ENERGYCO

- Confirm whether the prohibition applies to agricultural spray and spreading drones working alongside (not within) the easement, and what lateral and vertical separation applies.
- Confirm whether a consent or permit process is available for agricultural drone operations within or over the easement, subject to a safety assessment.
- Quantify the treatable area lost on affected and neighbouring properties.
- Explain how landholders and contract operators will be compensated for that loss.

8. Mitigation for aerial agriculture relies on a report that contains none for drones

Technical Report 6 rates the risk to aerial agriculture activities as A4 (16) before mitigation and A5 (11) after, on the basis that impacts "would be managed in accordance with measures set out in a separate aviation report" (land use conflict risk table, p.71; also s5.7).

That aviation report, Technical Report 11, contains no assessment of, and no mitigation for, agricultural drone operations. None of Technical Report 6's own measures (AG1–AG12) addresses aerial agriculture. The reduced risk rating is therefore not supported by any measure as far as drone operations are concerned.

Technical Report 6 also considers GPS impacts unlikely because no large-scale cropping enterprises were identified (s6.5.2), while accepting that "VHF receivers used in conjunction with GPS system may experience some interference" (s6.12). Drones depend on GNSS, RTK correction links and radio command-and-control links.

> REQUEST TO ENERGYCO

- Extend measure AG10 (GPS impacts) explicitly to RPAS navigation, RTK corrections and command-and-control links.
- Add a specific mitigation measure for agricultural RPAS operations.

9. Relocating airstrips could create new drone no-fly zones

Under the Part 101 Manual of Standards (Division 9.1), a non-controlled aerodrome has an RPA no-fly zone extending 3 NM from its runways, plus approach and departure paths extending 7 km. While a manned aircraft is operating in that airspace, a drone operator must manoeuvre away and land as soon as safely possible (ss 9.03–9.04).

Technical Report 11 proposes relocation or realignment of affected airstrips as a possible mitigation. As these rules appear to apply to private agricultural strips, a relocated strip could place a new no-fly zone over paddocks where drone application work is conducted. Increased manned activity at remaining strips such as 18381 could also increase drone downtime.

> REQUEST TO ENERGYCO

- Consider existing RPAS operations when assessing any airstrip relocation.

10. Manned and unmanned traffic may be concentrated in the same area

Strips close to the corridor west of Walcha (O-32 rated Major; O-33-1, O-33-2, O-33-3 and 18381 rated Moderate) are expected to have restricted operations. Manned agricultural activity may shift into the band between the corridor and Walcha, where drone application work is also conducted.

This potential mixing of manned and unmanned low-level traffic has not been assessed.

11. Charting is not an adequate mitigation for low-level work

Technical Report 11 relies heavily on the line being published on aeronautical charts. The Airservices Aeronautical Chart User Guide (s6.6, note e) states that "Only structures above 300FT AGL are shown" as obstacles.

The towers (typically 45–75 m, assessed at up to 80 m, about 150–260 ft) are therefore unlikely to be charted as obstacles, although the line may appear as a power transmission line feature. The visual charts covering this area are at 1:250,000 scale or smaller, which is not suitable for paddock-level planning.

Mitigation measure AS2 lists agencies, aerodromes and landholders within 10 km to receive final design data, but not local aerial application operators, including ReOC holders.

Knowing where a wire is, or having it on a chart, does not by itself prevent wire strikes. The ATSB education booklet Wirestrikes involving known wires (AR-2011-028), as cited in ATSB occurrence brief AB-2026-037, records that "63 per cent of wirestrike accidents occurred with pilots aware of the wire position". CASA's agricultural flying sector safety risk profile (January 2025) notes that "wire strikes continue to rise, especially in aerial application operations".

Recent fixed-wing agricultural accidents investigated by the ATSB include:

- 18 July 2024, 19 km south-east of Lake Cargelligo (NSW): during aerial agricultural spraying, an Air Tractor AT-502 "struck a wire and subsequently collided with terrain". The pilot was fatally injured (ATSB AO-2024-042; final report pending).
- 8 September 2025, 17 km north of Cummins (SA): an Air Tractor AT-802A spraying wheat fields crossed by 19 kV single-wire earth return lines about 12 m above the ground. Recorded data showed the pilot "conducted a right turn underneath the second power line after which the aircraft collided with terrain". The pilot was fatally injured (ATSB AO-2025-053; preliminary report, no findings yet).
- 26 August 2011, near Mogumber (WA): an Air Tractor AT-802 struck "an unseen fourth set of powerlines" during spraying, although the pilot had inspected the field using the farmer's map showing two powerlines (ATSB AO-2011-107).

Airstrips are also affected. In its investigation of a fatal wire strike on approach to a private grass strip near Merriton (SA) on 8 October 2023 (Cessna 172N, AO-2023-046), the ATSB found the powerline "was not marked in a manner sufficient to enhance visibility for pilots using the runway – nor was there a requirement to do so". The ATSB Chief Commissioner said that "airstrips on rural properties should be well separated from powerlines, even when the strip is only intended for use by pilots familiar with the wires". This applies directly to strips close to the corridor and to any relocated strip (see concern 9).

Agricultural and other low-level helicopter operations show the same pattern, including the accident nearest to this project:

- 18 June 2026, near Glen Innes (NSW): a Bell 206B spraying a 690-hectare property struck a single-wire earth return line that the pilot had identified and had been crossing during earlier runs. The wire caught in the spray equipment, the wire-strike protection system was ineffective, and the helicopter rolled over and was substantially damaged. The pilot was uninjured (ATSB AB-2026-037).
- 6 March 2026, near Orange (NSW): a Bell 206L-3 spraying near unmarked powerlines, both of which the pilot had identified, struck a three-wire line after deviating from the planned spray path. The wire-cutting kit cut two of the wires, but the third struck the main rotor and tail boom (ATSB AB-2026-016).

- 26 May 2021, 75 km west-north-west of Hay (NSW), mustering: a Robinson R22 flown towards cattle yards contacted a single-wire earth return line, which the ATSB described as "very difficult to detect", and the pilot was fatally injured. Because mustering to the yard had not originally been planned, no aerial inspection was done and the hazards at the yard were likely not considered (ATSB AO-2021-020).
- 31 July 2020, Steam Plains near Hay (NSW): a Robinson R44 conducting weed spraying struck a powerline that crossed its flight path, and the pilot was fatally injured. The ATSB found that "the pilot knew the wire existed" but had not conducted an aerial inspection on the accident flight (ATSB AO-2020-040).
- 13 March 2019, Bool Lagoon near Naracoorte (SA): a Robinson R44 spraying along a drainage channel struck a powerline after the pilot "momentarily forgot about the location" of it. The helicopter was destroyed. The ATSB noted that "it may not be possible to completely mitigate the risk of wirestrike during repeated low-level flying near powerlines" (ATSB AO-2019-011).
- 19 March 2018, Pappinbarra (NSW), aerial weed survey: a Bell 206L flying at 200 ft struck "an unknown and unseen 11 kV powerline". The span was 650 m long, its poles were obscured by trees and a building, and it ran perpendicular to the other powerlines along the valley. The wire-strike protection system severed the line and the helicopter landed in a paddock; one passenger had minor injuries (ATSB AB-2018-039).
- 25 March 2016, near Carmila (Qld): a Bell 206B spraying cane fields struck a powerline and the pilot was fatally injured, despite upper and lower wire-strike protection. The supporting poles were masked by trees against a low-contrast background (ATSB AO-2016-027).
- 10 April 2015, near Marion Bay (SA): a Robinson R44 dispensing herbicide struck "a previously unidentified power line", although the pilot had conducted an aerial survey of the area beforehand (ATSB AO-2015-037).
- Where the reports identify the wire, these accidents involved distribution lines or other low wires, not transmission lines. The project will add much larger structures to the same low-level environment. Technical Report 11 commits to marking only where a pilot considers the line could affect aerial application, and then only "where feasible".

> REQUEST TO ENERGYCO

- Provide final tower coordinates, heights and conductor sag profiles directly to local aerial operators, including ReOC holders, in GIS format.
- Commit to marking the line in accordance with AS 3891.1 wherever it crosses or adjoins paddocks used for aerial application or lies near an uncertified aerodrome, as identified with local operators, rather than only "where feasible".

12. Walcha aerodrome (YWCH) is not mentioned

Walcha Aerodrome (YWCH) is a registered, uncertified aerodrome published in ERSA (CTAF 126.7). Its entry notes "full NOTAM service not available". YWCH appears unlabelled on Technical Report 11 Figure 18, by my measurement about 6 NM (11 km) east of the corridor, just outside the 10 km search radius. I could not find it on the Technical Report 6 airstrip maps (Appendix 5, Figure 4.5b), although Armidale and Scone airports are shown on other maps in that series.

Its main runway (06/24) is aligned roughly east–west (about 072°/252° true), so runway 24 departures and runway 06 approaches are over the area towards the corridor. Camp 4 and a construction laydown at the Central-South Hub on the Oxley Highway (by my estimate 12–13 km from YWCH), and

construction helicopter, drone and crane activity along the corridor, will add activity in the airspace used by aircraft operating to and from YWCH.

Neither the aerodrome operator (Walcha Council) nor local aerodrome users are on the construction notification list (AS3). Direct notification would help ensure local users are aware of construction activity.

> REQUEST TO ENERGYCO

- Assess YWCH and add the aerodrome operator to the AS2 and AS3 notification lists.

13. Mapping and data accuracy

Technical Report 11 Figure 18 shows an unlabelled airstrip on the corridor west of 18381. O-31 and P-32 are listed in Table 8 but do not appear in any figure caption. O-33-1 is noted as having "no defined airstrip visible on satellite imagery". Its rating says operations "may be restricted to the west", which is ambiguous for a strip east of the line.

Technical Report 11 also gives two different dates for the Civil Aviation Regulations: "Civil Aviation Regulations 1998 (CAR)" in s1.3 and "Civil Aviation Regulations 1988 (CAR)" in its References. The correct title is the Civil Aviation Regulations 1988.

Technical Report 6 gives two different figures for uncertified aerodromes within 1 km of the project: "approximately 32" (s4.4) and "approximately 15" (s6.7). Its airstrip maps (Appendix 5) do not label the aerodromes, so they cannot be cross-referenced to Technical Report 11 Table 8.

14. Consultation with agricultural operators

For aerial application, Technical Report 11's operator input came from a single unnamed "local aerial provider" (Table 2). The AAAA (Aerial Application Association of Australia) policy quoted in the report calls for consultation "honestly and in detail with local aerial application operators". The AAAA is not listed in the consultation table, and no agricultural drone operator is identified. – To my knowledge they are not affiliated with Unmanned Aircraft or their operators.

> REQUEST TO ENERGYCO

Engage directly with local agricultural RPAS operators, not just the AAAA.



Figure 13 - **Agricultural Drone operating in a blackberry spraying capacity.**

5.2 Operator Report 2 - Agricultural drone impacts and operational experience

Agricultural drone impacts of the New England REZ transmission project

1 November 2026

Position and operational experience

I oppose the proposed overhead transmission infrastructure across the New England Renewable Energy Zone project because it threatens essential aerial agricultural access. The completed agricultural assessment, as described to me, misrepresents agricultural practice in my service area by suggesting that aerial agriculture is being phased out and replaced by ground equipment. That premise is inaccurate for the country I service and provides an unsound basis for assessing the project's agricultural impacts.

I provide agricultural drone services to multiple client properties around Walcha and towards Niangala using a DJI Agras T100. My services include aerial seeding, fertiliser spreading, paddock spraying and targeted weed control, including blackberry treatment. Agricultural drones are expanding their role in spraying, seeding, fertiliser spreading and farm monitoring. They provide a cost-effective means of working difficult terrain while reducing the need to expose ground operators to hazardous conditions. In my service area, drones increasingly replace ground equipment for suitable tasks. This submission objects to the whole New England REZ transmission project; the local experience described here demonstrates why assumptions about replacement by ground machinery must be tested across affected regions.

The existing assessment does not reflect local agricultural practice

Steep slopes, timber and difficult terrain make substantial areas I service inaccessible to tractors, trucks and other ground equipment even in dry conditions. Where ground access is possible, the terrain can make treatment extremely costly. During periods of high rainfall, saturated ground further restricts access because of bogging, loss of traction and unsafe operation on wet slopes. These seasonal restrictions also affect land accessible in dry weather.

Drones provide essential treatment access, subject to suitable flying conditions, where ground machinery cannot safely or practically operate.

I have been verbally advised that the completed project assessment presents aerial agriculture as declining and being replaced by ground equipment. I dispute that account as inaccurate and inapplicable to my service area: my operational experience is of increasing drone use, including substitution for ground equipment. The existing assessment must be corrected to reflect local terrain, seasonal access constraints and current agricultural practice, with direct input from working operators and farmers.

Agricultural activities and costs omitted or understated

The completed assessment's premise that ground equipment can replace aerial services does not reflect the range of work affected: low-altitude paddock spraying, targeted weed treatment, aerial seeding and fertiliser spreading. Wider farm uses include stock mustering and livestock monitoring, vermin monitoring and control where lawfully authorised, trough and water-infrastructure inspections and general reconnaissance. These wider uses illustrate the developing role of drones; they are not all services my business currently provides.

In the operations I describe, spraying is conducted close to the target vegetation, while paddock seeding and fertiliser spreading are typically carried out at about 20 metres above the ground. These are descriptions of operating practice, not universal requirements or safe clearances from wires. Terrain and the actual conductor heights must be considered together. Transmission corridors can fragment a paddock into separate operational areas. If flights cannot cross or work within the corridor, additional turns, repositioning, launch locations and separate missions may be required. I expect this to increase operating time and charges to farmers. Substituting ground treatment can be extremely costly on difficult terrain and is impossible on some country, including during wet periods. An assessment that assumes ground machinery will replace aerial services fails to account for these practical constraints and risks understating additional costs, delayed treatment and loss of effective weed and pasture management.

Restrictions and navigation evidence

The proposed backbone infrastructure is rated at 500 kV, or 500,000 volts. EnergyCo's current New England REZ landholder information indicates a final easement approximately 140 metres wide for dual lines, or 60 to 70 metres for single lines; widths can increase for long spans and require property-specific confirmation. These are total easement widths, not drone clearance distances. [5]

Transgrid's published guidance states that drones are not allowed within or over its transmission-line easements. This is evidence of Transgrid's published position. Restrictions on aerial access have direct consequences for the agricultural services described in this submission. [1]

The DJI manual warns that high-voltage lines can be sources of interference affecting flight orientation and location accuracy and instructs operators to use RTK in an environment free from radio interference. Any resulting loss of positioning accuracy or control could cause a collision, equipment damage and financial loss. These navigation risks, including for operations relying on RTK positioning, reinforce why a ground-replacement premise cannot establish that agricultural impacts are acceptable. [2]

Warranty insurance and liability

The DJI manufacturer warranty supplied with my drone excludes powerline strikes from its first-year collision protection. This is separate from insurance. DJI's published collision-warranty provision is conditional on flight-log assessment and non-human causes and excludes scenarios involving linear obstacles. [3]

Specialist drone insurance exists for accidental third-party property damage and agricultural operations, but full powerline-strike cover cannot be assumed. One published policy excludes indirect or consequential loss, including third-party business interruption, and excludes illegal or uninsured activities. The policy schedule and endorsements determine actual cover. No insurer has confirmed acceptance of my particular T100 operations near these proposed lines. [4]

Farmers are not automatically liable merely because work occurs on their land. Aircraft-damage law, negligence, contracts and workplace-safety duties nevertheless require examination. No reliable Australian count specifically of agricultural drone powerline collisions was identified; crewed-aircraft wire-strike figures must not be represented as drone statistics.

Conclusion and requested action

I dispute the accuracy of EnergyCo's completed agricultural assessment. The premise verbally communicated to me that aerial agriculture is being phased out in favour of ground equipment is inaccurate for the Walcha-Niangala country I service. It fails to reflect increasing drone use, permanent terrain constraints, wet-weather inaccessibility and the high cost of ground treatment. The project should not proceed as proposed where it would impair essential aerial agriculture. Its existing agricultural conclusions should not be relied upon without correction and independent scrutiny informed by working operators and affected farmers. These objections apply across the project.

For the typical client properties I service, I estimate that the additional cost of replacing drone services with ground-based methods would, in a single year, exceed the entire proposed twenty-year payment offered. Work completed quickly by drone would require labour-intensive ground crews, including people spot-spraying on foot where access allows. Farmers would face these recurring costs year after year, making the proposed payment inadequate to offset the ongoing impact.

If the project proceeds despite this objection, require enforceable arrangements preserving workable agricultural access and compensating demonstrated losses and additional costs. Require a network-owner and operator waiver of accidental-strike claims during lawful agricultural work, supported by project-funded indemnity or insurance for infrastructure

damage, legally recoverable supply-interruption claims and defence costs. Third-party exposure must be addressed explicitly. These safeguards require legal drafting and cannot displace aviation or workplace-safety obligations. They do not constitute support for construction.

Sources

[1] Transgrid, Flying uncrewed aerial vehicles near Transgrid infrastructure, October 2024: transgrid.com.au/media/jm0d33o4/uncrewed_aerial_vehicle_fact_sheet_oct_24.pdf
[2] DJI, AGRAS T100 User Manual, Australian edition, September 2025, pp 13–18 and 35: dl.djicdn.com/downloads/t70_t100/20250926/T100_User_Manual_v1.0_au.pdf
[3] DJI, T100 specifications and collision-warranty qualification: ag.dji.com/t100/specs
[4] One Underwriting, UAS policy wording, October 2021, third-party liability and general exclusions; linked at oneunderwriting.com.au/Products/Drone. Sources accessed 1 November 2026.
[5] EnergyCo, Landholder information for the New England REZ Network Infrastructure Project: energyco.nsw.gov.au/our-projects/new-england-rez/network-infrastructure-project/landholder-information. Accessed 1

6 | Uncertified aerodromes and aviation infrastructure

The EIS identifies a large number of uncertified aerodromes but the submission raises unresolved questions about affected strips, neighbouring users, associated infrastructure, relocation and the adequacy of the mapping used to communicate those impacts.

6.1 Airstrip impacts and associated infrastructure

Positioning Infrastructure

> *"The project has been designed to avoid and/or minimise potential impacts to land use and property, consistent with the planning pillars and principles that have guided the iterative route selection …. It is acknowledged that in some locations, competing land uses, property and technical constraints are present. At these locations a balanced approach to corridor planning is required to determine the most appropriate project alignment, while minimising impacts on land use, property and the environment during construction."*
>
> Pages 494 - 495 NERNIP EIS

Narrowing of the initial 3km study route to the current design has not demonstrated a *consistent* approach to minimising impacts to land use, especially with regards to aerial agriculture.

6.2 Mapping deficiencies

High-quality maps

Maps utilised in the NERNIP EIS with regards to aviation are not of a high quality nor are they of a consistent format between Technical Report 6 – Agriculture and Technical Report 11 – Aviation. Landholders have had difficulty identifying their air strips from the maps provided. Neighbours who make use of air strips have also found it difficult to identify strips that they use

6.3 Consultation and explanation of unchanged design

Description of consultation process and the issues raised and identify where the design of the development has been amended in response to these issues. Where amendments have not been made to address an issue, an explanation should be provided

Energy Co states in Technical Report 11 - Aviation that a "*range of different tools and consultation activities have been used to provide information to the community and other stakeholders to provide opportunities for feedback including letters delivered to directly affected landholders. The letters sent out to landholders included sketch plans which identified known local airstrips (uncertified aerodromes)." Page 33* yet landholders state they have received no such communication that specifically refers to their airstrips. Given that fifteen airstrips have been assessed as having a major level of impact and a further nineteen at a moderate level of impact this lack of communication on Energy Co's behalf is negligent. Assessment procedures and results should have been published in the NERNIP EIS for scrutinisation. Energy Co have failed to identify any amendments to planning made after consultation with the local service provider and no explanations are provided for their unchanged plans. Additionally, no consideration has been made by Energy Co in the NERNIP EIS regarding any infrastructure associated with impacted airstrips, such as hangers, water tanks, fertiliser dumping points and chemical storage facilities. MAT ONSLOW'S PICTURES with captions stating existing hanger and foundation works for another

7 | Aviation activities not included in assessment

The EIS assessment is also challenged on the basis that it does not adequately address the broader low-level and recreational aviation environment. The following material is retained as a discrete aviation objection.

The objection centres on critical omissions within "Technical Report 11 Aviation Impact Assessment.pdf" (prepared by Aviation Projects, September 2026).

While the report addresses commercial aerodromes, agricultural operations, and emergency services, it fails entirely to assess the severe safety impacts the proposed 80-metre high-voltage transmission lines (HVTLs) will have on local recreational and unpowered aviation activities.

Primary Ground for Objection: Incomplete Assessment Scope

Under the Secretary's Environmental Assessment Requirements (SEARs) (Technical Report 11, Section 1.3.1, Table 1, Page 22), the proponent is required to "Assess potential impacts on aviation safety".

A review of Section 4 ("Existing Aviation Operations") and Section 6 ("Aviation Impact Statement") of the Technical Report reveals a complete omission of specific recreational and low-level aviation activities. The EIS cannot be considered comprehensive or complete until the hazards to the following airspace users are formally assessed and mitigated:

Unassessed Aviation Activities and Associated Hazards

The introduction of dual 500 kV and 330 kV transmission lines, with towers up to 80 metres Above Ground Level (AGL) (Technical Report 11, Section 1.2, Page 19), introduces fatal hazards to the following unassessed activities:

Activity	Hazard
Hot Air Ballooning	Balloons have limited directional control and rely on wind currents. Sudden wind shifts can push balloons into towers. The extensive transmission corridors permanently remove vast tracts of land that serve as necessary safe zones for unplanned or emergency landings.
Gliding and Hang Gliding	Unpowered flight relies strictly on the availability of clear agricultural paddocks for emergency "out-landings" when a pilot loses thermal lift. The project will fragment these open spaces, removing vital emergency landing sites. Furthermore, high-voltage wires are notoriously difficult to see from the air until evasive action is impossible.
Recreational & Agricultural Drones and Model Aircraft	The 500kV and 330kV lines generate significant Electromagnetic Interference (EMI) capable of disrupting radio control frequencies, GPS signals, and internal drone compasses, leading to loss of control. Additionally, the infrastructure creates massive physical obstacles that obstruct the visual line of sight legally required by aviation regulations (CASR Part 101).
Parasailing, Parachuting, and Paragliding	These sports are highly vulnerable to wind drift during descent. The presence of new 80m AGL HVTLs introduces an unassessed, fatal entanglement and electrocution risk should an operator be blown off course.
Ultra-light Aircraft	Ultra-lights routinely operate at much lower altitudes than standard General Aviation (GA) aircraft. Transmission lines—specifically the thin, hard-to-see earth/shield wires at the highest point of the towers—are a leading cause of fatal wire strikes in low-level aviation. This specific risk profile has not been addressed in the AIA.

Recommendation for Action

The current Aviation Impact Assessment is deficient and fails to address the holistic aviation safety landscape of the New England REZ.

> POSITION SOUGHT

We reject the current Aviation Impact Assessment as incomplete. The proponent must be compelled to issue a Supplementary EIS that specifically models, assesses, and provides mitigation strategies for the impacts of the infrastructure on hot air ballooning, gliding, hang gliding, paragliding, parachuting, ultra-light aircraft, and drone/model aircraft operations.

8 | Construction-phase aviation impacts

8.1 Construction activity and low-level flying

Mitigation of impacts during construction

Given the height of construction and machinery participating in construction including cranes and helicopters the risk to low level flying is considerable. Risk is exacerbated by the movement inherent in the construction process. Mitigation measures listed in the NERNIP EIS are insufficient

8.2 Post-construction notification and operational information

Mitigation of impacts after construction

Given the impediment that the NERNIP poses to low level flying, mitigations listed in Table 12, page 79 and 80 of Technical report 11 – Aviation are insufficient. In both AS2 and AS3 the list of authorities to notify are inadequate.

9 | Consultation evidence from affected landholders and operators

The survey and interviews below provide direct evidence of how aerial agriculture and aviation are used in the affected area, and of the level of consultation reported by respondents.

Survey Analysis

A survey of affected landholders was conducted to support this section of the submission in response to the NERNIP EIS. In the limited time frame available 26 responses were received.

- 88% of respondents have their property transected by the NERNIP
- The remaining 12% are within 3km of the NERNIP
- 3 responding landholders, with multiple properties, also had property further than the 3km radius
- 69% of respondents have an uncertified aerodrome on their property
- Of the respondents that do not have an airstrip – all but 1 makes use of a neighbouring strip.

- The respondent who doesn't use an airstrip makes considerable use of drone services which will be severely impacted due to the alignment of the NERNIP through their property
- 100% of respondents fertilise by air
- 65% also make use of aerial agriculture to disperse seed and control weeds
- 58% use aerial services for pest management
- 3 airstrips have been used for emergency landings
- 1 airstrip was used during the 2019-20 bushfire fighting
- Only 40% of respondents could identify their air strips on the maps published in the NERNIP
- Only 2 respondents indicated that they had communicated with Energy Co with regards to their airstrips. In both circumstances they initiated the communication and Energy Co failed to engage in open discussion with regards to avoiding their airstrips
- Remaining respondents stated that they had received no contact from energy co regarding aerial agriculture

Interviews with aerial service providers and private pilots tabling their concerns

In compiling this response, a number of aerial services and private pilots of fixed wing, helicopter and drone aircraft were interviewed. 7 fixed wing, 3 drone and 3 helicopter operators shared their thoughts.

- All declared concern with safety issues with some stating that beacons and other visual aids should be installed.
- All private pilots expressed concern with visibility, especially of the lines and to a lesser extent the towers in renowned Great Dividing Range weather and that CASA regulations do not do enough to protect them
- All private pilots were concerned that aero clubs, aviation tourism and aerial sports had not been considered
- Most private pilots wanted to be able to receive updates with regards to obstacles to flight throughout the construction phase
- One Walcha Aero Club member mentioned the use of the Walcha Aerodrome by military aircraft and that no mention is made of this in the NERNIP EIS
- Another raised that Heathcote Aerodrome is listed for pilots as an emergency airstrip and that this hasn't been addressed by the NERNIP EIS
- One service provider declared significant concern at the proximity of some uncertified aerodromes to the NERNIP in that no pilot would ever expect lines to be so close to air strips. That line strikes are the leading cause of death for aerial spreader pilots and that this will compound that statistic.
- Drone operators were so incensed by the lack of consideration given to them that they provided their own objections and requests to this submission
- An aviation enthusiast also submitted an additional submission.

10 | Cumulative impacts

Cumulative impacts have been insufficiently assessed in the NERNIP EIS. While the EIS lists the current projects and those sitting with state planning, they have not acknowledged that this project is being designed to cater to the NSW government objective of 6 GW of transmission capacity from the New England REZ, in stage 1. Cumulative impacts should thus reflect this overall objective.

Deficiencies

The EIS does not establish a reliable baseline of agricultural, private, recreational and RPAS aviation activity across the project area.

The consultation described in the EIS is not commensurate with the number of uncertified aerodromes, the diversity of aerial service providers or the number of neighbouring properties that rely on aerial access.

The agricultural assessment does not adequately assess the economic and operational consequences of lost or less efficient aerial application, particularly where ground access is unsafe, impractical or unavailable.

Technical Report 11 does not adequately assess agricultural drone operations, including the regulatory framework, easement restrictions, EMF and navigation risks, and interaction with manned low-level aviation.

The treatment of wire-strike risk, charting, obstacle marking and construction-phase notification is not sufficient for a corridor introducing new large obstacles into established low-level flying areas.

Mitigation and compensation remain insufficiently developed. Airstrip relocation or adjustment, marking, alternative operating arrangements, construction stand-down procedures, compensation and liability arrangements require defined plans, costs and responsibilities before determination.

> POSITION SOUGHT

- Assess the consequences of any prohibition or restriction on drone operations within or near the easement, including lost treatable area, additional operating costs and compensation mechanisms.
- Assess each airstrip proposed for relocation, realignment or restricted use in consultation with its owner, operators and neighbouring users, including the effect of relocation on manned and unmanned aviation and on associated farm infrastructure.
- Provide detailed plans and costings for airstrip relocation or adjustment, obstacle marking, warning systems and other aviation mitigation. Where mitigation cannot preserve existing use, provide a transparent and enforceable compensation framework for affected landholders and service providers.
- Provide final tower coordinates, heights and conductor sag information directly to relevant local operators in usable GIS form, and establish marking requirements for lines near aerial application areas and uncertified aerodromes rather than relying only on general charting.
- Develop construction-phase aviation controls covering cranes, helicopters, temporary obstacles, changing work fronts and notification to local operators, including procedures for stand-down or right-of-way where construction would conflict with lawful aerial agricultural operations.
- Assess Walcha Aerodrome, Heathcote and other relevant registered, uncertified or emergency landing facilities that may be affected even where they fall just outside arbitrary search distances.
- Reassess cumulative aviation impacts having regard to the broader build-out enabled by the transmission project, including the combined effect of additional transmission, generation and associated infrastructure on low-level agricultural and private aviation.
- Publish the completed reassessment and any materially revised mitigation for public scrutiny before determination. Matters central to aviation safety, agricultural access and economic impact should not be deferred to post-approval management plans.

> POSITION SOUGHT

Before the application is determined, EnergyCo should be required to address the following matters with published evidence, defined responsibilities and, where relevant, plans and costings:

1	Undertake and publish comprehensive consultation with affected landholders, neighbouring users of uncertified aerodromes, fixed-wing and helicopter aerial application providers, agricultural RPAS operators, private pilots, aero clubs and other affected aviation groups.
2	Identify and map all uncertified aerodromes and relevant associated infrastructure within the affected area, provide coordinates and high-quality property-level mapping, and reconcile inconsistencies between Technical Reports 6 and 11.
3	Reassess aerial agriculture using the actual agricultural practices of each affected region, including fertiliser spreading, spraying, seed dispersal, pest management and current commercial drone use, and quantify impacts on production, efficiency and treatable land.
4	Extend the aviation regulatory assessment to CASR Part 101 and its Manual of Standards, and to Part 137 where relevant, and provide specific mitigation for agricultural RPAS operations.
5	Provide project-specific analysis of electric and magnetic fields and other interference relevant to RPAS navigation and control, together with final design information needed by operators to establish evidence-based operating limits.
6	Assess the consequences of any prohibition or restriction on drone operations within or near the easement, including lost treatable area, additional operating costs and compensation mechanisms.
7	Assess each airstrip proposed for relocation, realignment or restricted use in consultation with its owner, operators and neighbouring users, including the effect of relocation on manned and unmanned aviation and on associated farm infrastructure.
8	Provide detailed plans and costings for airstrip relocation or adjustment, obstacle marking, warning systems and other aviation mitigation. Where mitigation cannot preserve existing use, provide a transparent and enforceable compensation framework for affected landholders and service providers.
9	Provide final tower coordinates, heights and conductor sag information directly to relevant local operators in usable GIS form, and establish marking requirements for lines near aerial application areas and uncertified aerodromes rather than relying only on general charting.
10	Develop construction-phase aviation controls covering cranes, helicopters, temporary obstacles, changing work fronts and notification to local operators, including procedures for stand-down or right-of-way where construction would conflict with lawful aerial agricultural operations.

11	Assess Walcha Aerodrome, Heathcote and other relevant registered, uncertified or emergency landing facilities that may be affected even where they fall just outside arbitrary search distances.
12	Reassess cumulative aviation impacts having regard to the broader build-out enabled by the transmission project, including the combined effect of additional transmission, generation and associated infrastructure on low-level agricultural and private aviation.
13	Publish the completed reassessment and any materially revised mitigation for public scrutiny before determination. Matters central to aviation safety, agricultural access and economic impact should not be deferred to post-approval management plans.

WALCHA HIGH COUNTRY GUARDIANS

Rouchel Brook ACTION GROUP

PROTECT THE VALLEY
UPPER HUNTER
RESPONSIBLE INFRASTRUCTURE GROUP

Voice for Walcha