

Submission on the Environmental Impact Statement for the Wallaby Wind Farm

Executive Summary

Acciona Energy Australia Global Pty Ltd (Acciona) has submitted an Environmental Impact Statement (EIS) for the Wallaby Creek Windfarm (the Project).

I object to the proposal. Acciona has failed to consider the significant risks and impacts that arise from the proximity of the Project to the extensive and long-standing ***gliding*** operations at Narromine Airfield.

The Aviation Impact Assessment (AIA) contains a Risk Assessment (RA) of the impacts of the Project on ***power aircraft*** operations but is silent on the impacts on gliding.

This is a material omission. Gliders have significantly different characteristics and risks to those of power aircraft. Unlike power aircraft, gliders, may fly at or below the blade tip height of the WTGs (nominally 1,000 ft) at any stage of a flight.

Gliders may need to fly at low altitudes to seek out lift. Gliders may also land in suitable paddocks if lift is not found. A glider returning to the airfield typically flies a longer, flatter approach than a powered aircraft. At a height of 1,000ft it could safely glide 15 to 20 kilometres to the airfield. A pilot must have safe landing areas available at all stages of flight and must maintain situational awareness as gliders do not have the options available to power aircraft to avoid obstructions.

The AIA RA concludes that the residual risks arising from the Project for power aircraft are “Acceptable”. It is likely that an RA specifically for gliders would result in a higher risk rating given these different characteristics.

Without a gliding RA, the EIS is incomplete and possibly misleading as it does not identify all the significant risks of the Project as required by legislation.

To ensure transparency, the EIS requires amendment and further public consultation before decision making by the Department of Planning, Housing and Infrastructure (DPHI).

Structure of the Submission

- Section 1. Gliding Risk Assessment Considerations
- Section 2. Aviation Impact Assessment - Risk Assessment
- Section 3 Narromine Airfield and Gliding
- Section 4 Economic Impact

1. Gliding Risk Assessment Considerations

A typical cross country glider flight involves a launch to about 2,000 feet behind a power aircraft. The glider releases, searches for lift (thermals) and if successful circles and climbs to cloud base, then glides off on track to find more lift.

The glider proceeds across the landscape in a series of climbs and glides. Glider flights from Narromine are typically 300 to 500 kilometres depending on the conditions and there have been many flights of over 1,000 kilometres in good conditions.

A pilot must have must have safe landing areas available at all stages of flight and must maintain situational awareness as gliders do not have the options available to power aircraft to over fly unlandable terrain or avoid obstructions. Unlike power aircraft, gliders may fly at or below the blade tip height of the WTGs (nominally 1,000 ft) at any stage of a cross-country flight.

Gliders, for example, may need to fly at low altitudes to seek out lift on occasions down to the CASA minimum of 500ft height above the ground. Gliders may also land in suitable paddocks if lift is not found.

A glider returning to an airfield typically flies a longer, flatter approach than a powered aircraft. A modern glider can usually travel 40 to 60 kilometres from a height of one kilometre. As the nearest WTGs are about 15 kilometres from the airfield, a glider could still be at 800 to 1,200 feet at that distance and expect to glide safely back to the airfield.¹

CASA regulations require that for aircraft, including gliders, the minimum clearance to an obstruction like a WTG is 500ft vertically and 300 metres horizontally. To maintain these clearances gliders do not have the same options available as power aircraft.

Glider pilots undergo intensive training to ensure that they can fly safely in all conditions. Flying in proximity to obstructions of the size and magnitude of the Project would likely add to the already high workload of a glider pilot at low level.

Prior knowledge of the location of obstructions such as the Project may not an effective mitigant of the risk. A Federal Aviation Administration study into wire strikes by power aircraft found that 65% of pilots were explicitly aware of the powerlines prior to the accident.² While there is an order of magnitude difference between power lines and WTGs, the study does illustrate that awareness is only a component of the risk controls and mitigants.

¹ Note that the Project site is approximately 400 to 600 ft higher than Narromine Airfield increasing the effective height of the glider.

² Wire-Strikes in Agricultural Operations: A Focus Group Study, Federal Aviation Administration, June 2023, pp11

Gliders and gliding operations have materially different characteristics and risks to those of power aircraft. It is therefore likely that an RA of gliding operations would conclude that risks are higher than for power aircraft—that is “Unacceptable”.

2. Aviation Impact Assessment - Risk Assessment

The AIA, Section 9, details an RA of the impact of the Project on power aircraft and identifies three relevant risks:

1. Aircraft collision with wind turbine generator (WTG) (CFIT)
2. Aircraft collision with a wind monitoring tower (WMT) (CFIT)
3. Harsh manoeuvring leads to controlled flight into terrain (CFIT)
4. Effect of the Project on operating crew

The RA concludes that while the consequences of these risks are “Catastrophic”, the occurrences, after mitigation are “Unlikely” leading to an overall risk of “Tolerable”.

One of the inputs into the RA is an analysis of worldwide accidents involving aircraft collisions with WTGs—five cases were cited, suggesting that such occurrences are rare.

There are two issues with this analysis:

1. A wider focus on aircraft collisions with structures of a similar magnitude to WTGs such as communication towers, radio masts, aircraft navigation towers, high voltage transmission lines and the like would result in a wider dataset for analysis; and
2. A report prepared for EASA detailed an additional four occurrences.³

Two statements in the RA are not correct for gliders and gliding operations:

“GA VFR aircraft operators generally don’t individually fly a significant number of hours in total, let alone in the area in question”

“There is a relatively low rate of aircraft activity in the vicinity of the wind farm.”

Figure 1 and Figure 2 show GPS tracking data from over 4,200 flights in the period 2017 to 2026 with most data being from later years. The data is sourced from weglide.org, a website where pilots from around the world can share GPS and photographic data of their flights.

³ Accessed at [Safety impact of wind turbines in the vicinity of aerodromes and air routes](#), pp A4-1

Figure 2 focuses on the Project location and shows a significant activity either over in proximity to the Project.

Many of these flights will, of course, be thousands of feet above the WGTs in normal circumstances. However, an RA cannot assume that normal circumstances will always prevail.

3. Narromine Airfield and Gliding

Narromine Airfield is recognised as one of the best sites in Australia for cross country and competition gliding.

Glider pilots from all over Australia and internationally come to Narromine to fly. Narromine has excellent weather conditions for soaring. The rural landscape, being mainly agriculture, provides many options for safe landing in paddocks when lack of lift (or lack of pilot skill!) requires a landing away from the airfield. Further, there are few airspace restrictions.

There have been extensive glider operations at Narromine for over fifty years.

Narromine has hosted numerous regional, state and national gliding competitions and two World Gliding Championships (2015 and 2023).

NGC operates fulltime during the soaring season, typically October to April, and on weekends and public holidays at other times.

A key feature of Narromine is the excellent and well-maintained airfield and airfield infrastructure and the ready availability of accommodation and other facilities in the town.

The airfield owner, the Narromine Shire Council, is supportive of and actively promotes gliding and other aviation activities.

The Council see the airfield as a community asset that brings visitors and associated economic benefits to the town and surrounding areas.

The Council has invested in the airfield with a 60 unit “Skypark” residential development (combined house and hanger sites with access to taxiways) and a 22-unit Aviation Business Park” with sites for hangars, workshops and other buildings for aviation related businesses with access to taxiways.

4. Economic Impact

The Council sees airfield as community asset that brings economic activity to region.

The Project, if it proceeds in its current form is likely to have a negative impact on gliding activities as pilots perceive that Narromine is a higher risk and less attractive site.

There are three to four gliding sites in Australia that provide similar gliding conditions and facilities to Narromine, and there is competition between these sites.

Glider pilots thus have options to choose other sites that are safer, likely leading to a downturn in operations at Narromine.

Ultimately this may impact the value of investments by the Council in the airfield, infrastructure and residential and commercial developments and by individuals as many of the houses in the Skypark are owned by glider pilots.