

Lal Lal Wind Farms

Aviation lights, Vestas July 2020 report



Aviation lights, background

The installation and activation of aviation lights is a planning permit requirement. The Civil Aviation Safety Authority, (CASA) approves the use of this technology. Vestas turbines are in use at Lal Lal Wind Farms (LLWF) and their maintenance team is contracted to operate the wind farm. Vestas is supported by a team of technicians around the world.

Radar activated aviation lights are installed on 29 of the 38 turbines at the Yendon end of the project and 17 of the 22 turbines at the Elaine end of the project.

LLWF, is the first wind farm in Australia to adopt radar activation of aviation lights.

Aviation lights are activated by radar when a light aircraft is in the area in periods of darkness or foggy conditions.

Feedback from the community has been received that aviation lights have been activated for extended periods of time at both Yendon and Elaine, since radar installation occurred over 12 months ago. LLWF has been working closely with Vestas and Council to address these concerns which has culminated in an in-depth study of the radar activation for July 2020, noting the frequency and duration of aviation lights being activated.

July 2020, Vestas report of radar activation, findings

Between the Yendon and Elaine sections of LLWF, there were 112,610 detections made by the radars. With the use of filtering parameters built into the radars, the system intelligence only activated the warning lights 191 times.

This equates to an average 'aviation lights off-time' of 98% of July night time on Elaine and 98.6% on Yendon.

- Of those detections some can be attributed to non-aircraft triggers such as bird flocks. However, the nature of system is to default to maintain aircraft safety in any event where there is the possibility a trigger could represent an aircraft.
- Triggers due to commissioning or other site activities has reduced to less than 0.6% at Elaine and 0.2% at Yendon, noting the project is still in the testing phase at both sites.

The Vestas global monitoring team has recorded that LLWF has one of the lowest 'lights-on' times globally of all Vestas wind farms using this system.

Continuous improvement

Vestas is continuing to monitor and improve the functioning efficacy of the radar activation of aviation lights. LLWF is also liaising with The Office of the National Wind Farm Commissioner, Department of Environment, Land, Water and Planning (DELWP) and Moorabool Shire Council regarding community feedback. The July report illustrates that the aviation lights are off for 98% of the time when LLWF was in darkness at both Yendon and Elaine.

Website: www.lallalwindfarms.com.au

Email: info@lallalwindfarms.com.au

Community hotline: 1800 187 183