

I would like to make a submission to the ACEN Birriwa Solar Project SSD-29508870.

I object to the planned industrial solar project.

The size of the project at an estimated 1,000,000 solar panels covering 1330 ha (13.3km²) is a massive size for the area. Residents of the area are already subject to being within sight of the proposed Merothorie hub (EnergyCo) and the proposed wind turbine project Valley of the Winds (ACEN). I believe that the cumulative effect on residents will be detrimental to those residents well-being and their enjoyment of their homes and properties and potentially impact the operation of their farming businesses.

My other concerns are:

There will be major inconveniences to residents during the lengthy construction process. The increased traffic will negatively impact residents and local road users, increasing travel times to locals and travellers. The construction noise is also a major concern to residents near to the site – construction traffic will dramatically increase with Table 6.12 of the EIS stating that daily traffic will be 986 movements per day – including light vehicles, shuttle buses and heavy vehicles. This is a massive increase, particularly on the local roads (not including Highways) that often number daily traffic in the single or double digits. The safety of nearby residents, their children and livestock when moving between properties is also a severe and unacceptable risk with the dramatic increase in traffic.

The estimated workforce of 800 will potentially stretch the local community's access to rental accommodation. Located near to the historic town of Gulgong and the popular tourist destination of Mudgee where tourist accommodation is already limited, an influx of construction workers will decimate the limited availability of rentals. Tourism is recognised locally as significant portion of the area's income and any loss in this area will be felt throughout the community.

Solar panels are NOT environmentally friendly – made with a toxic mix of gallium arsenide, tellurium, silver, crystalline silicon, lead, cadmium, and heavy earth materials. Solar panels deteriorate, resulting in lost efficiency, total failure or even fire. They get damaged by hail, wind and fire and potentially leach their toxic chemicals into the soil and water courses. Birriwa Solar site has White Creek & Browns Creek traversing the site which could potentially be poisoned by these toxic chemicals. Major damage does happen – such as with the Beryl Solar plant in 2020 with impacts from heavy rain, a lightning strike, inverter damage and other failures. The contamination risks to the land and through the water courses cannot be tolerated by the local community.

PV solar systems are also prone to fires from panel and electrical equipment failures causing risk to nearby farms, native bush and the community, as accessing the fires on/near a solar site is difficult and limited for safety reasons. Gunnedah Rural Fire Service has confirmed that firefighters can only fight fires in a solar plant from the perimeter due to dangerous high voltages and the possibility of toxic gases. In August 2022 a small grass fire near Beryl solar plant required a dozen emergency vehicles and three water-bombing helicopters to protect the solar plant and nearby farm. A small fire of this size could potentially be put out by easily and quickly by minimal fire crew, yet this small fire took four hours and multiple crew to bring the situation under control.

A precious resource in Australia is water. Yet this project states it estimates use will be

218,000,000 litres of water during construction and 7,500,000 litres per year after that, that they intend to source from local dams and wastewater (non potable) trucks. I have doubts that the local dams will be able to provide sufficient water in a normal rain year or drought years. I am also concerned that the wastewater trucked in may contain contaminants which could risk nearby landholders, native wildlife and those downstream of the water courses on site.

The current proposal also includes a BESS. Batteries use lead, lithium and cobalt, all of which are hazardous materials. This is of much concern to residents and the community as ordinary fire suppression measures cannot extinguish a Lithium chemical reaction fire. A fire that occurred in the 350MW/450MWh BESS during testing on 30 July 2021 in Geelong, Victoria shows how dangerous it can be for nearby residents. When one of the 13 tonne battery packs caught fire, it burned for three days and resulted in the evacuation of residents because of the toxic fumes generated.

Huge solar plants are not visually appealing and will impact near and not-so-near neighbours. As well as potentially impacting the value of neighbouring properties, the natural beauty of this district is very popular with travellers and visitors. Placing solar panels over 13km² of scenic farmland will likely deter tourists visiting as the once productive farming land will be a reflective sea of solar panels.

Apart from removing land from productive farming for up to 35 years there is the likely long-term damage to the soil. The long term impact to the soil (from compaction and potentially leaching of toxic chemicals into the soil) could ruin its ability to be productive farmland in the future. The EIS states "any underground cabling below 600 mm will remain in-situ following project decommissioning" - this is hardly sufficient and will interfere with deep rooted plants, trees and some farming practices.

I urge DPE to listen to those most heavily impacted by this project and to consider the cumulative impact on the district by multiple developments. This project, by a foreign owned profit-making entity should be rejected.

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