

**Gullen Solar Farm – Development Application 7/2016**  
**Proponent submission to Southern Joint Regional Planning Panel**

**Comments on ULSC Assessment Report and Recommendations Conditions of Consent**

**1. Introduction**

Gullen Solar Farm is a proposed project near the town of Bannister, New South Wales. The Project is intended to be a ground mounted solar farm that provides an electrical output of 11MW which will supply electricity to the national grid that is equivalent to powering 3160 NSW homes per year.

Gullen Solar Pty Ltd (GSPL) has reviewed the Upper Lachlan Shire Council (ULSC) Assessment Report for the Gullen Solar Farm DA 7/2016 and provides comments on the recommended conditions of consent (Attachment 4 of the Assessment Report).

GSPL accepts the assessment report as a rigorous and appropriate review of the DA 7/2016 but notes that a number of the conditions arising from the assessment are excessive or unnecessary such that their implementation will have an adverse impact on the viability of the project without providing any significant environmental or social benefit.

The Solar Farm project is considered to be an important contribution to national and New South Wales state objectives for development of renewable energy projects. Renewable energy projects reduce carbon emissions while contributing to building a sustainable environment for the benefit of future generations of Australians. Efficient implementation of the project alongside appropriate environmental management will ensure a cost effective and responsible development that will provide an affordable supply of electricity from a renewable energy resource.

Aspects of the recommended conditions that are considered either unduly onerous, impractical or not warranted based on the assessments provided with the DA are summarised below and discussed in the following sections.

- Recommended Construction Noise Conditions in relation to ‘piling’ are considered unduly onerous and considered unnecessary based on specialist assessment of noise impacts
- Recommended Road sealing from Range Road to site (Bannister and Storriers Lanes) is considered unnecessary
- Recommended sealing of Crown Road access is considered unnecessary
- Recommended treatment of driplines of solar panels is considered excessive

The proponent seeks the Southern JRPP review of the specific matters contained in this submission in conjunction with its determination of DA 7/2016.

**2. Recommended Conditions in relation to ‘Piling’**

Council has identified Section 6.6 of the Noise Assessment Report, ‘*Construction Noise Control Measures*’ the Statement of Environmental Effects (SEE) as needing to be implemented throughout the carrying out of works in the development. GSPL believes that the application the noise control measures ‘*throughout the works*’ is excessive as the Noise Assessment Report provided examples only and included practical qualifications, ‘*where reasonable and feasible*’, ‘*Where practicable*’, ‘*Use of respite periods during highly intrusive works*’.

The outcome of recommended conditions provides constraints on the efficient conduct of the 'piling' works through the following requirements:

- Reduces working hours for piling to 9am to 5pm (Mon-Fri) resulting in loss of 15 hours per week and excludes piling works on Saturdays, further loss of 5 hours for piling. The total loss of time for the piling activity is 20 hours per week.
- Introduces a mandatory respite period of one hour following a two hour period of piling activity, which further reduces time for piling by 10 hours per week
- Net reduction in time available for piling is 30 hours per week (total working hours 60 hours)

Based on the recommended conditions, the time available for piling per week of construction is reduced by 50%, which correspondingly doubles the duration of the piling activity to 4 months. Subsequently, this will have a flow on effect on the project timeline such that it will delay the completion of the Project by 2 months which will place time and cost pressures on the viability of the Project.

The installation of foundations for the solar farm (referred to as 'piling') is an activity that involves ramming steel posts into the ground to a sufficient depth of approximately 1.5 metres that will provide a stable support for framework on which solar panels can be mounted on. The posts are significantly smaller than those typically used on large building projects, such that they will be similar in size to regular fence posts.

Typically, the piling machine takes 2-3 minutes to drive a post into the ground, following which there is a 2-3 minute respite period where the piling machine will move and set up at the next piling location. Accordingly, it can be seen that this break provides a natural respite from the noise of the pile driving activity. Consequently, it can be concluded that the activity contains an inherent respite due to the need to move the machinery between sites such that a single piling rig will only be emitting noise for approximately 50% of the duration of normal piling activity.

An alternative solution to the recommended conditions is to increase the number of piling machines required to build the site. This will lead to the emission of potentially more continuous noise from the piling activity which may create an increased impact on the neighbours adjacent to the site. The use of multiple piling machines can also create a higher level of noise emission when operating at the same time or with less potential for normal respite periods if the machines are not moving at the same time, i.e. one piling and one moving at the same time.

The predicted noise levels (based on conservative noise modelling approach) for this activity are described in Section 6.4, Stage 3 construction activity and, in Section 6.5 the Piling Works are described as the highest noise level construction works, while also noting that the noise levels are; *"sufficient for the piling works to be clearly audible, the noise levels are likely to be tolerated given the day work periods."* Further to this, we note that the Report has stipulated the use of acoustic hoarding around the piling rig which will reduce the noise emissions by the piling rigs.

In summary, the piling phase was originally estimated to take approximately 2 months to complete. If the intended planning constraints are placed on the project, the duration of this activity would be doubled to 4 months with the completion of the project delayed by a corresponding timeframe. The proponent believes that neighbours may appreciate that the duration of works is shorter if the impacts are not unduly excessive.

**Requested Condition:** Piling activity to be allowed to be undertaken throughout the extent of the construction working week without mandated breaks due to the inherent respite periods between

piling actions. The acoustic hoardings to be implemented as per the recommendation outlined in the ULSC Report to mitigate noise emissions from the site.

### **3. Sealing of Bannister and Storriers Lanes between Range Road and the Site**

This section of road will experience increased traffic volume for a relatively short period during the Solar Farm construction, following which the operational traffic volume will be very low of 3-4 passenger vehicles per week. It is proposed that some gravel and stabilisation of the road surface will be adequate to maintain the standard of this low traffic volume local road.

Detailed planning of the project construction has indicated that the expected traffic for the site will be significantly less than described in the Statement of Environment Effects. It is now expected that there will be a maximum number of 200 heavy vehicle deliveries to the site during the construction period. From this figure, it can be inferred that the damage to the indicated sections of Bannister and Storriers Lanes during the construction period will be minimal during this period. It is also noted that the vehicles will be within the gazetted bearing capacity of the roads.

It is proposed that addition of gravel and stabilisation of the road surface will be adequate to maintain the standard of this low traffic volume road. The project would commit to maintaining the road to at least its current standard during the construction period.

*Requested Condition:* The Project to undertake the recommended planning condition of gravelling and stabilisation of the road of Bannister and Storriers Lanes prior to the completion of the project, but not to seal the road. The project would be responsible to maintain the road to at least the current standard during construction and regrade the road on completion.

### **4. Sealing of Crown Road used for access to the site**

Section 5.5.2 of the Statement of Environmental Effects notes that the expected site traffic volumes will be 2-3 workers visiting the site per week. As such, we believe that given this low volume of operational traffic to the site that sealing of this access route is excessive. The Project has committed to maintaining this road in the short term. In addition, there will be higher long term costs for the ULSC. In addition, the sealing of the Crown Road will increase the environmental impact of the Project through the use of additional construction materials and increased construction traffic.

Further to this, sealing of the Crown Road would represent a higher standard than some of ULSC local roads such as the western extents of Bannister Lane along with Walkoms Road.

*Requested Condition:* The Crown Road to be completed with an unsealed finish in accordance with ULSC standards for unsealed roads. The project will be responsible for maintenance of the Crown Road during construction and operation.

### **5. Treatment of drip lines from the Solar Panels**

We have reviewed the assessment on the treatment of drip lines from the Solar Panels and believe that it is not in accordance with the NorBE assessment that was produced following the site visit with our specialist consultant and Water NSW. Noting the impending JRPP determination meeting, we will approach Water NSW directly to discuss this requirement further.

The current proposed treatment method provided by Water NSW of installing bitumen and jute matting at the front of all of the solar panels is estimated to cost an additional \$250,000 to the Project. It should be noted that the proposed treatment method is suitable for fertile soils whereas a significant number of alternatives are suitable for less fertile soils such as the site.

Our specialist consultant believes that an adaptive management approach to soil and erosion control on the site during operation is the most suitable and practical solution due to the low soil fertility and varying range of erosion risk on the site. As such, we would like to request that this specific requirement is waived at present and replaced with a condition that agreement is made with Water NSW prior to completion of the project works.

An example of the Royalla Solar Farm shows that grass has established below the panels and provides protection against erosion, thereby avoiding the need to undertake works to install the controls described in the recommended conditions. Examples of pasture growth below solar panels is shown in Plates 1 and 2 below.

*Requested Condition:* Soil and erosion control measures for the drip lines along the front edge of the Solar Panels to be agreed with Water NSW prior to the completion of the project works.



Plate 1 – Solar panels at Royalla Solar Farm



Plate 2 – View below Solar Panels at Royalla