

8 November 2023

Our Ref: 21277

Eliza Eastman
Planning Officer
Edward River Council

Via NSW Planning Portal

**Re: Response to Council RFI
DA2023/0024 – Micro Solar Farm – 39 Hogans Lane, Deniliquin**

Dear Eliza

Thank you for your letter dated 11 October 2023 seeking additional information in relation to DA2023/0024.

Green Gold Energy (GGE) are keen to work with the relevant government agencies to ensure that any environmental concerns can be resolved to make this project a success.

As you may be aware, not all solar farms that obtain development consent are constructed. In most cases, this is because the applicant was unable to obtain a Connection Offer. To further support the proposal, I have attached the first page of the Connection Offer for the facility.

GGE took two years to obtain the Connection Offer from Essential Energy, a process that involved considerable expense. Because they have obtained the offer, once the Development Consent is issued, they can immediately start work on obtaining a Construction Certificate and building the facility. Consequently, GGE have undertaken some extensive further testing to satisfy both Council and the WRPP that the concerns relating to visual and noise impacts can be readily addressed with this renewable energy project.

To further ensure that there would be guaranteed to be no impacts on any nearby dwellings, GGE has removed the north-western bank of panels of the original solar farm, which caused some areas of non-compliance as a result of the construction work.

In light of the above points, on behalf of GGE, I provide the following information in response to the four (4) items of concerns requested by the consent authority:

1. Visual Impact Assessment

Urban Initiatives were engaged to prepare a Visual Impact Assessment and detailed Landscape Plan for the proposal.

Photographs were taken from five (5) nearby viewpoints. Four (4) of these viewpoints correspond the four (4) closest dwellings to the site, which are the dwellings most at risk of visual impacts from the proposal. The other viewpoint (*viewpoint #3*) is from the crossover to 39 Hogans Lane, showing how the proposal will look to passing traffic. The location of each viewpoint is shown on page 4.

Fencing is now shown wholly behind the screening landscaping to further mitigate the potential for visual impact. Photomontages were prepared showing the facility after the landscaping has established for five (5) years, for each viewpoint the photomontage demonstrates that after five (5) years, the proposed landscaping will obscure the facility from view from each of these viewpoints.

Viewpoint 1

This viewpoint is from the north-west corner of the paddock at 39 Hogans Lane, near the irrigation channel. It was not possible to gain access to 31 Hogans Lane, therefore, the viewpoint was chosen to give an approximation of the view from the dwelling at 31 Hogans Lane (which is closer to the proposed facility than the dwelling).

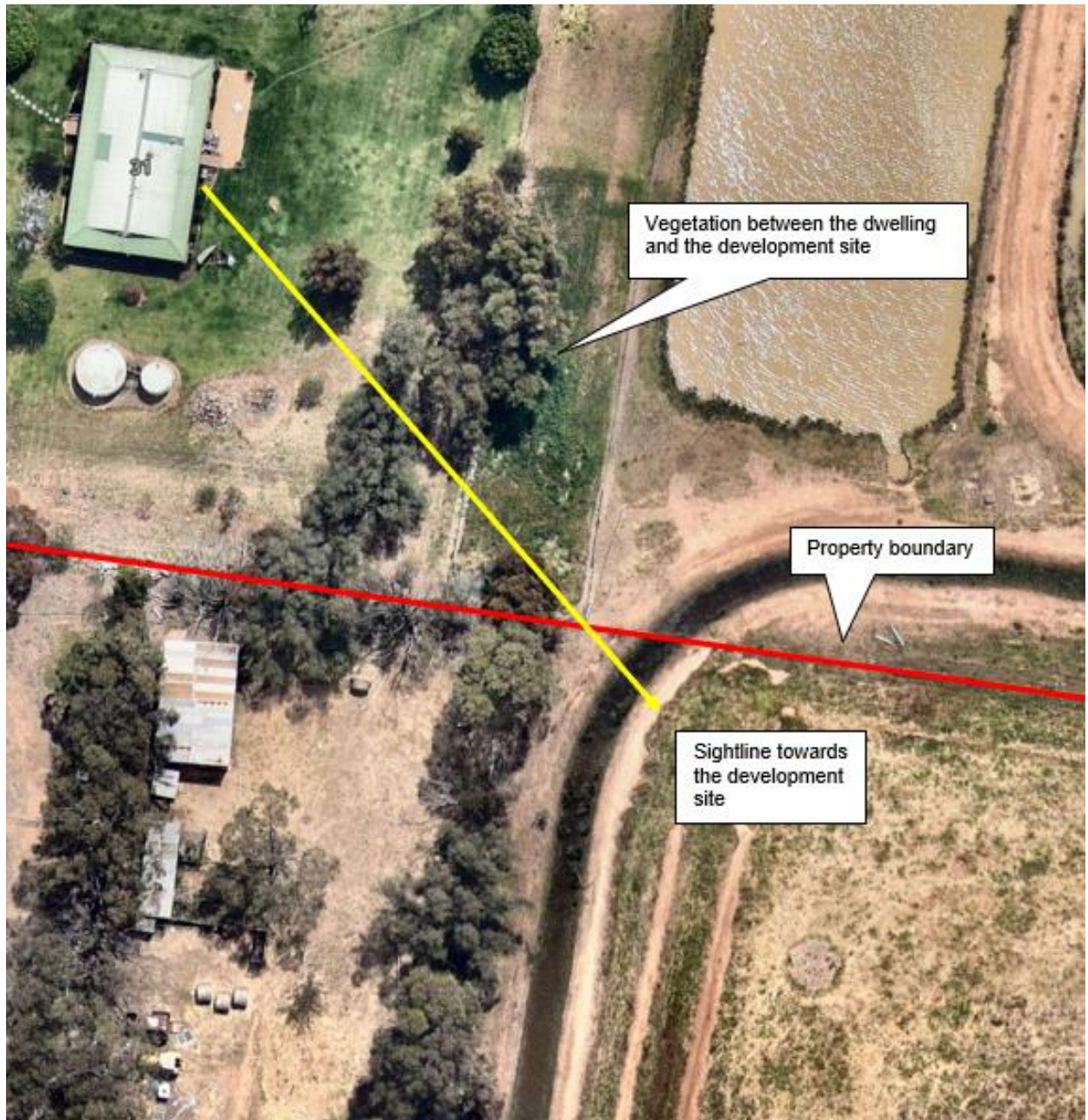
The dwelling is 82 metres north-west of the proposed location for the boundary fence, as shown in the below extract of the Site Plan.



A five-metre-wide landscaping buffer is proposed on the north-western side of the facility. The buffer will be comprised of “Mix A” species, as detailed on the planting schedule, and will also include advanced plantings of Kurrajong trees. The advanced plantings will reduce the time required for the trees to grow and screen the facility from view, further reducing the risk of any negative visual impacts to the occupants of 31 Hogans Lane.

The photomontage shows that after the landscaping has established, the solar panels and security fence will not be readily visible from the dwelling. The landscaping effectively screens the facility and provides a pleasant view of native vegetation.

Note that there is vegetation between the dwelling and the property boundary, as shown on the aerial photograph below. Therefore, views from the dwelling will be obscured further than is shown in the photomontage.



Vegetation between the dwelling at 31 Hogans Lane and the development site
Source: Nearmap, photograph taken 28 October 2023

Viewpoint 2

This viewpoint is on Hogans Lane to the south of the development site. It was not possible to gain access to 83 Hogans Lane, therefore, the viewpoint was chosen to give an approximation of the view from the dwelling at 83 Hogans Lane.

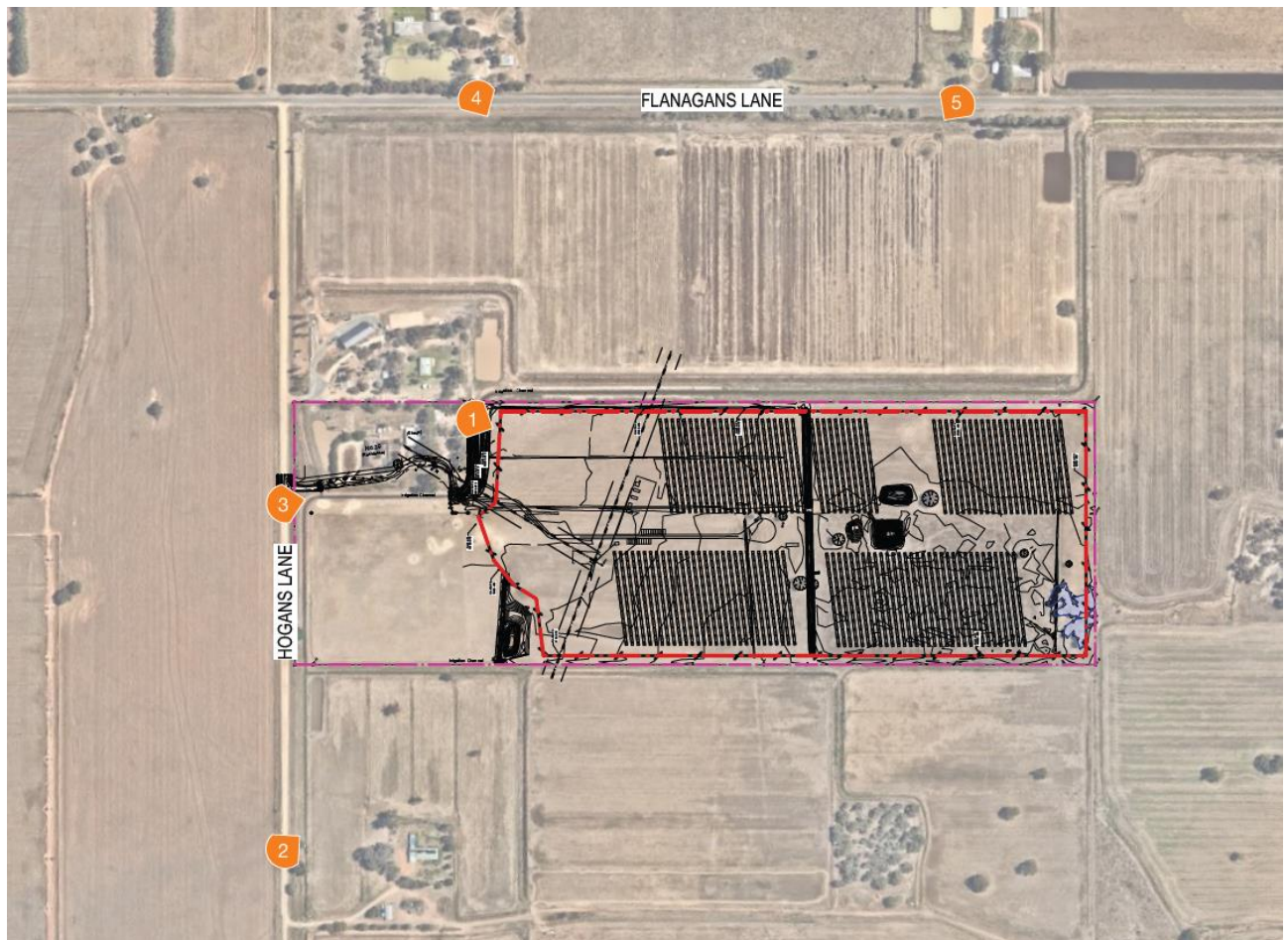
The dwelling is around 215 metres south-west of the development site. The photomontage shows that after the landscaping has established, the facility will not be visible behind the landscaping buffer. From this distance, the landscaping buffer will blend into the landscape and the existing trees in the area.

Viewpoint 3

This viewpoint shows the facility from the crossover to 39 Hogans Lane. It was chosen because it is the closest point to the development site along the lane, therefore, is the point at which the facility will be most visible for passing local traffic.

No development is proposed in the eastern paddock, which will continue to be used for grazing. The proposed development will be well set back from the road, with the security fence being 183 metres west of Hogans Lane.

The photomontage shows that the landscaping buffer will be wide enough to screen the proposal from view of Hogans Lane. Due to the distance from the road to the site, the proposal will be well-screened and difficult for passing motorists to identify as a solar farm.



Viewpoint Map – Showing Viewpoints 1 to 5 relative to the proposed facility

Source: Visual Impact Assessment

Viewpoint 4

This viewpoint shows the facility from Flanagans Lane. The viewpoint was chosen to give an approximation of the view from the dwelling at 335 Flanagans Lane.

The dwelling is about 372 metres north of the development site. The photomontage shows that once the landscaping has established, the facility will not stand out from the surrounding area. The proposed species and planting schedule give the appearance of a revegetation area or other natural feature, and the proposal will overall improve the visual amenity of the area.

Note that there is vegetation between the dwelling and Flanagans Lane, as shown on the aerial photograph below. Therefore, views from the dwelling will be obscured further than is shown in the photomontage.



Vegetation between the dwelling at 335 Flanagans Lane and road reserve containing Flanagans Lane

Source: Nearmap, photograph taken 28 October 2023

Viewpoint 5

This viewpoint shows the facility from Flanagans Lane. It was not possible to gain access to 391 Flanagans Lane, therefore, the viewpoint was chosen to give an approximation of the view from the dwelling at 391 Flanagans Lane.

The dwelling is approximately 325 metres north of the development site. At this distance the proposed landscaping buffer will be difficult to distinguish from other vegetation in the area, and the proposal will not be noticeable in the landscape.

Note that there is vegetation between the dwelling and the development site, as shown on the aerial photograph below. Therefore, views from the dwelling will be obscured further than is shown in the photomontage.



Vegetation between the dwelling at 391 Flanagans Lane and road reserve containing

Source: Nearmap, photograph taken 28 October 2023

2. Detailed Landscaping Plan

The updated Landscape Plan proposes a combination of trees and shrubs to screen the facility from view. Four (4) different combinations of plants are proposed: Mix A, Mix B, Mix C and Mix D.

Mix A, Mix B and Mix C are proposed to provide variety in the appearance of the landscape buffer, which will result in a more natural look.

Mix D consists of smaller species and is proposed under electricity lines to comply with Essential Energy requirements.

In addition to these mixes, it is proposed to plant advanced maturity Kurrajong trees on the north-western corner of the site. This will reduce the time required for the trees to screen the facility from view. Kurrajong trees are the only advanced plantings proposed, as they are more likely to survive transplantation than other native plants. Urban Initiatives have advised that other native species tend not to survive transplantation, therefore, tube stock is proposed for the other species.

Two widths of planting are proposed: five (5) metre wide buffers on the western and northern boundaries, and two (2) metre buffers on the southern and eastern boundaries. The photomontages demonstrate that the buffers will screen the facility from view of Hogans Lane and from nearby dwellings.

The landscaping will be located outside of the security fence, so that the fence is screened from view.

3. Construction Noise Impact Assessment

The site layout has been revised to reduce the risk of construction noise impacts on the dwelling at 31 Hogans Lane:

- The number of panels was reduced from 9,720 to 9,396, resulting in a reduction in generation capacity from 5.35 MW DC to 5.17 MW DC.
- The solar arrays and laydown area were shifted to the east of the transmission line that crosses the property.

The layout is shown on the **Site Plan** (Rev. H).

The landscaping has not been moved to the east as it may impede the future use of the property for agriculture. The landowner prefers the landscaping to be on the edges of the paddock and not bisect the paddock, as this may make it difficult to graze or crop the land.

The **Construction Noise Assessment** (CNA) has been updated to reflect the revised **Site Plan**. The modelling is based on an updated construction staging from that presented in the Submissions Report (June 2023), as it separates piling from other construction activities. The updated staging is shown in Table 1 of the report, and the plant and equipment for each stage is shown in Table 7.

The modelling assumes that the daytime background noise level of the area is 35 dBA and sets the Noise Management Level (NML) at 45 dBA.

The worst-case scenario model, (i.e., all plant and equipment operating simultaneously at the nearest point to the receiver), without mitigation measures, resulted in noise levels above the NML at 31 Hogans Lane (R2) and 83 Hogans Lane (R12) during site establishment (early works) and piling works:

- Site establishment will take place during the first month of construction and will involve construction of the security fence, planting of the landscaping buffer, construction of the access track from Hogan's Lane, construction of the laydown and car parking areas, and set up of site amenities.
- Piling works will occur during the second month of construction and will involve the use of a pile driving machine to install the support posts for the tracking system.

The largest exceedance is 8 dBA at 31 Hogans Lane during site establishment.

The assessment notes that:

- The Transport for NSW Construction Noise and Vibration Guideline indicates that an exceedance of the NML of up to 8 dBA will be clearly audible but is not considered to be intrusive (moderately or highly).
- Exceedances of the NMLs are predicted under worst-case construction activities with all plant and equipment operating simultaneously at the closest point of the construction area to the nearest receivers. During construction, it is highly unlikely that all plant and equipment would operate simultaneously or operate in the same immediate vicinity. Hence, the predicted noise levels should be interpreted as being overly conservative.
- As demonstrated by the range of predicted construction noise levels, exceedances are only anticipated when the works are at their nearest proximity to the receivers. Where this occurs, it is anticipated that impacts would occur for over a short duration.
- Site establishment and piling will occur during the first two months of construction, only, and any potential noise impacts would be limited in duration.

Section 7 of the report recommends mitigation measures to reduce the potential for noise impacts. If implemented, it is anticipated that construction noise levels could be reduced by upwards of 10 dBA and would therefore typically comply with the NMLs. **The result would be no exceedances for the NMLs at any nearby residential receiver.**

A **Construction Noise Management Plan** has been prepared for the proposal. Table 9 of the plan lists mitigation measures to be implemented during construction. These consist of notification, operational measures, and sound barriers.

- **Notification:** It is recommended to notify potentially affected residences with project progress, proposed/upcoming potentially noise generating works, its duration and nature, and complaint procedure.
- **Operational measures:** These measures relate to where and how equipment is used on the site. They include measures such as regularly servicing machinery and limiting working times to standard construction hours.
- **Sound barriers:** Where construction noise may impact nearby dwellings, it is recommended to use sound barriers. These would be placed between the dwelling and machinery to reduce noise emissions. They would also be placed around the laydown area. These would consist of either:
 - Mobile screens; or
 - Stacks of hay bales; or
 - Construction hoarding.

The type of barrier will be determined by the construction contractor. It is noted that hay bales are a visually appropriate material in the rural landscape and may be more visually suitable than other types of barriers.

4. Protection of Hogans Lane during construction

Hogans Lane is a gravel road, the concern raised by local submitters that it may be damaged by construction vehicles is noted. To reduce the risk of damage during construction of the proposal, the following conditions of consent have been suggested by Council's asset management department:

- *Before the start of construction, Hogans Lane must be constructed to Council's standards as follows:*
 - *Formation width: 8 metres wide*
 - *Pavement width: 5 metres wide*
 - *Gravel pavement: 100 mm compacted depth.*
 - *Distance: From the intersection with Flanagan's Lane to a point 100 m south of the crossover to 39 Hogan's Lane.*
- *Before the issue of a Construction Certificate, a suitably qualified engineer will prepare a dilapidation report detailing the structural condition of Hogans Lane, to the satisfaction of the certifier. Any damage caused to Hogans Lane during construction will be rectified by the*

applicant, at the applicant's cost. A copy of the dilapidation survey and an insurance policy that covers the cost of any rectification works will be submitted to Council prior to the commencement of works. The insurance cover will be a minimum of \$10 million.

The CEMP contains the following measures to reduce dust generation:

- The monitoring of dust levels shall be undertaken through regular visual inspections of the work sites and activities by the Project/Site Engineer or delegate.
- Dust generating activities will be assessed during periods of windy conditions and ceased and rescheduled where adequate control of dust generation cannot be achieved.
- Visual observation of machinery conditions shall also be undertaken during site inspections in addition to Daily Pre-Start Checks. Daily Pre-Start Checks are required to be undertaken by all plant operators on construction plant, equipment, vehicles and machinery to ensure all equipment have appropriate emission control devices, are in good working order and are being maintained correctly.

In addition to the measures in the CEMP, if necessary, a water truck will be used on Hogans Lane to reduce dust.

I trust that the information provided above satisfies any outstanding concerns of Council and the Western Regional Planning Panel.

If you require any further information in this matter, please do not hesitate to contact our office.

Yours sincerely,



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Town Planner

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Attachments:

- Site Plan by Green Gold Energy, Rev. H, dated 11 October 2023
- Landscape Documentation by Urban Initiatives, dated 8 November 2023
- Construction Noise Impact Assessment by MAC Consulting, dated 25 October 2023
- Construction Noise Management Plan by MAC Consulting, dated 26 October 2023
- First page of the Connection Offer from Essential Energy, dated 18 September 2023