

Our ref: SSD-21208499

Stephen Barry
Planning Director
Independent Planning Commission NSW

Via email: [REDACTED]

12/12/2023

Subject: Glanmire Solar Farm (SSD-21208499) – Response to Request for Information

Dear Mr Barry

I refer to your letter dated 5 December 2023 concerning the Independent Planning Commission's (the Commission's) consideration of the Glanmire Solar Farm (SSD-21208499).

The Department of Planning and Environment's (the Department's) responses to the questions in the Commission's letter are provided below. The Commission's questions are included in bold italics for reference.

Setbacks & buffers

- 1. Please advise whether the proposed eastern and western boundary setbacks for the development site comply with the relevant guidelines and are appropriate to ensure visual impact mitigation and land use compatibility is achieved for adjoining properties.***

The *Large- Scale Solar Guideline* (2018), (2018 Guideline) which applies to this project, does not contain requirements for setbacks for large scale solar projects for visual impact or land use compatibility (including heat island effects).

In regard to visual impact, the revised *Large-Scale Solar Guideline* (2022) (2022 Guideline) and the technical supplement for landscape and visual impact assessment includes performance objectives related to the visual impact of a project and recommends avoiding the impact through project design only where there is a high visual impact. Importantly, in relation to visual impacts, the Department's assessment concluded the visual impact at all residences surrounding the site would be nil to low, and Elgin's proposed screen planting would further reduce the potential visual impacts of the project to an acceptable level, consistent with the 2022 Guideline.

In regard to land use, the 2022 Guideline states that where a solar energy project is located adjacent to a horticultural or cropping activity, the solar array should be setback from the property boundary by at least 30m to mitigate any heat island effect.

As detailed in Elgin's Submissions Report, the eastern boundary of the solar arrays is set back a total of 35 m from the adjacent properties. This buffer includes reliance on the Brewongle Lane road reserve, which the Department considers is acceptable given the road would contribute towards the required separation between the solar arrays and adjacent properties where cropping activities occur. Accordingly, the Department considers this buffer to be consistent with the 2022 Guideline.

Consideration of the adequacy of the buffer distances along the western boundary of the project site is provided in response to question 2 below.

Importantly, in relation to land use compatibility, the Department's assessment concluded the project would not significantly conflict with any of the existing or approved residential or agricultural land uses on the surrounding properties in accordance with the *State Environmental Planning Policy (Transport and Infrastructure) 2021*.

Heat island effect

2. Through its Site Inspection and Locality Tour (including engagement with the landholders of R21), the Commission understands that cropping activity may occur up to the western boundary of the development site. Noting this, please confirm the Department's view of the appropriateness of the proposed western boundary setback and its use of adjoining land outside the development site area given Table 8 (page 28) of the Department's Assessment Report specifies:

Although the western edge of the solar arrays is set back less than 30 m, the Department considers the buffer which have been incorporated (i.e. minimum of 20 m) is appropriate given there is no horticultural or cropping activity on the adjacent property and the proposed landscaping buffer would further mitigate potential heat island effects.

Elgin's EIS identified that land owned by the landholder of R21 (i.e. Lot 2 DP839259) immediately adjacent the western boundary of the project is used for grazing, rather than cropping. Based on this information, the Department considered that a buffer distance of less than 30 m would be appropriate, noting that the recommendation for a 30 m buffer within the 2022 Guideline specifically applies to areas "where a solar energy project is located adjacent to a horticultural or cropping activity".

The Department understands that the landholders of R21 have since provided the Commission with additional information indicating that cropping activities occur up to the western boundary of the project site.

There are two properties adjacent to the western boundary, Lot 1 DP839259 and Lot 2 DP839259 (which includes R21) (see **Figure 1**). As shown on **Figure 1**, there appears to be two paddocks that comprise the portion of Lot 2 DP839259 adjacent to the site boundary. Adjacent to Lot 1 DP839259 and the northern paddock of Lot 2 DP839259 the vegetation buffer proposed by Elgin would be 10 m wide. Adjacent to the southern paddock of Lot 2 DP839259, the vegetation buffer would be 5 m wide, however there is an existing formed track adjacent the project site in this paddock as is evident on current and historic imagery dating back to 2013 (see **Figure 1**).

Lot 1 DP839259 and the northern paddock of Lot 2 DP839259 may have evidence of intermittent cropping.

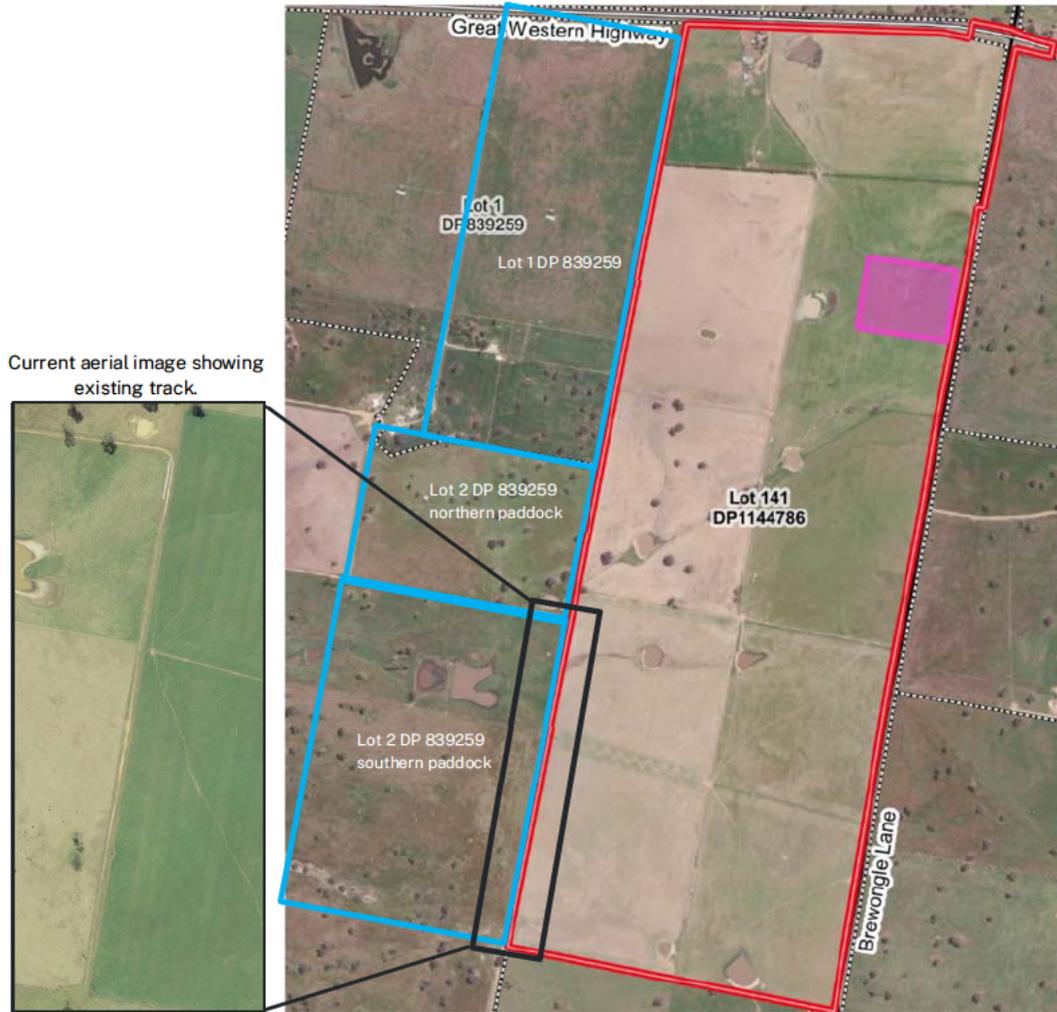


Figure 1 | Properties along the western boundary of the site

The formed access track, which is approximately 10 m wide and runs the entire length of the southern paddock adjacent to the site boundary (approximately 840 m), would preclude cropping all the way up to the site boundary and could be considered as a component of the buffer. The Department considers this to be appropriate given the intent of the recommended buffer within the 2022 Guideline is to mitigate heat island impacts on the crops themselves. As with the inclusion of Brewongle Lane in the eastern buffer, the Department considers that the existing track (which is evident on the current and historic aerial imagery) would provide separation between any crops and the solar arrays, therefore contributing to the mitigation of any heat island effect.

As stated in the Department’s assessment, a study commissioned by Greater Shepparton Council in 2018 found that vegetation surrounding solar farms will contribute to cooling through transpiration and assist in further mitigating the heat island effect, particular in instances where the height of the vegetation exceeds the top of the solar arrays.

It is likely the vegetation screens proposed by Elgin along the western boundary (between 5 and 10 m wide) would affect the micro climate around the plantings, producing shade and providing some protection from temperature and strong winds, particularly, in the extremes of winter and summer. The Department notes that the height profile of the vegetation screens, once mature, would far exceed the height of the solar panels.

In summary, notwithstanding that the 2022 Guidelines do not apply to the project, and that vegetation buffer would reduce the likelihood of a potential heat island effect, the Department acknowledges the additional information provided. The Department considers that additional buffer distances could be implemented through a condition of consent requiring Elgin to ensure that the solar arrays are set back from the property boundary by at least 30 m.

The Department notes that the indicative layout shows the arrays staggered along this boundary and while such a condition would have a consequence of potentially reducing the number of panels overall and generation capacity, a similar capacity may be able to be achieved through detailed design.

Agricultural land

- 3. *The Commission notes that statements were made at the Public Meeting that only 6% of the Bathurst Local Government Area (LGA) comprises cropping land and that the development site is part of that resource. Noting this, did the Department consider the loss of Land and Soil Capability Class (LSC) Class 3 land on the site within its regional context, i.e. the Bathurst LGA?***

The Department notes that Table 2 of the Agricultural Assessment provided as part of the Submissions Report presents Australian Bureau of Statistics (ABS) data which shows that a total of 8,705 ha of land within the Bathurst Regional Council local government area (LGA) was used for 'cropping' in the 2020-2021 financial year, equating to approximately 6% of the agricultural land in the LGA.

Firstly, the Department notes that this does not quantify the area of land within the LGA that is able to be cropped, simply the area which was cropped in that year.

More importantly, the Department notes that the ABS data states the 8,705 ha only includes 'land mainly used for crops' (e.g. cereals and grains), and goes on to quantify that there is a total of 107,895 ha of 'land mainly used for crops and improved pastures' which more closely represents the land use of the project site (i.e. grazing and cropping for fodder). This equates to a total of approximately 70% of the land subject to agricultural activities within the Bathurst Regional Council LGA.

Applying these more representative figures demonstrates that, even if the whole project site (186 ha) was considered to be suitable cropping land, it would comprise only 0.17% of the land within the Bathurst Regional Council LGA which was subject to cropping activities in the 2020-2021 financial year. However it is important to note that only approximately 40 ha of the site was identified as having a Land and Soil Capability of Class 3, and this equates to only approximately 0.03% of the cropping land within the LGA.

The Department considers this analysis further supports the conclusions within our assessment report, that the overall agricultural productivity of the Bathurst Regional Council LGA would not be significantly reduced, noting also that the inherent agricultural capability of the land would not be affected given the site would be returned to agricultural uses following decommissioning and rehabilitation.

Consistent with the conclusion on our assessment report, the Department considers that the loss of this small area of agricultural land in the region (i.e. a maximum of 0.17% of the area used for cropping in 2020-2021) must be balanced against the broader strategic goals of the government, along with the environmental and economic benefits of solar energy and the commitments for decommissioning to restore the land to pre-existing productive capacity.

- 4. *During its Site Inspection and Locality Tour, the Commission discovered that much of the site appears to be cropped currently or recently. A number of speakers at the Public Meeting also noted that a majority of this land is and has been utilised for cropping.***

Noting paragraph 83 of the Department's Assessment Report, which specifies that the majority of the development site "has been previously cleared and used for agricultural activities including grazing and some cropping", what is the Department's view on the above observations?

The observations made during the public meeting, and associated site inspection, regarding cropping history of the site is consistent with the description provided in the Department's assessment report and the Applicant's EIS. In particular, Section 2.1 of the Department's assessment report (Site and Surrounds) states that the site is comprised largely of cleared cropping and grazing land.

Further to this, the Applicant's EIS identifies that the existing land use on the site comprises a regime of grazing and fodder cropping.

The Department's assessment took into account the land use of the site (including its cropping history), and the Department considers that there was no information presented at the Public Meeting regarding current or historic use of the project site which would affect our recommendation.

Insurance

- 5. *An issue raised by a number of speakers at the Public Meeting was that increased, and potentially unattainable public liability insurance would be required for adjacent properties as a result of the Application. Has the Department given any consideration to how this issue could be managed, including whether in its view a condition of consent could be implemented to mitigate these impacts?***

The Department acknowledges the concerns raised by the community, both during our assessment of the EIS, and again during the Public Meeting, however we do not consider that clear evidence has been provided on increased premiums or an inability to obtain insurance as a result of the proposed project.

More importantly, the Department also notes that both legal representatives who presented at the Public Meeting agreed that the issue of insurability for adjacent landowners is not able to be readily resolved through a condition of consent. This included Mr Hayden Fielder (on behalf of Glanmire Action Group) and Mr Paul Lalich (on behalf of Fitzsummer Pty Ltd) who are quoted as stating the below:

Mr Hayden Fielder (emphasis added):

*One alternate method or resolution which I've been asked to comment on is whether a perpetual indemnity could be imposed on the owner of the solar farm. For example, an indemnity by the owner of the solar farm that it will pay for any loss or damage caused to the solar farm by an adjoining owner. **There's a fundamental difficulty with that** course; namely, there will be, no doubt, successors in title to both the solar farm and the adjoining land and it's well established under the common law that positive covenance such as perpetual indemnities do not run with the land and, therefore, will not bind successors in title. **So I presently don't see that as a workable solution.***

Mr Paul Lalich (emphasis added):

*As Mr Fielder pointed out, of counsel, it's difficult to - and **beyond the reach of the planning law** for an indemnity to be imposed by way of a condition of consent.*

The Department agrees with these statements and considers that the issue of insurability, in particular potential use of an indemnity-related condition, is not considered to be a planning matter under the EP&A Act.

Notwithstanding this, Mr Paul Lalich went on to suggest that buffer distances should be considered in order to mitigate bushfire risk, and therefore reduce the likelihood that insurance companies would increase premiums.

As stated in our assessment report, the Department considers that the risk of fire spreading into the site from an adjoining property, or from the solar arrays and infrastructure to an adjoining property would be adequately mitigated with implementation of the proposed management measures and adherence to the recommended consent conditions, which have been developed in consultation with NSW Rural Fire Service and Fire and Rescue NSW.

Further to this, as outlined in response to Question 2 above, the Department considers that buffer distances could be enforced through a condition of consent requiring Elgin to ensure that the solar arrays are set back from the property boundary by at least 30 m, consistent with the requirements of the 2022 Guidelines.

6. ***Noting the NSW Government's Response to the NSW Agriculture Commissioner's Reports dated 1 March 2023 (specifically page 10 of the Response under the theme of 'Fire and insurance risks'), please advise what progress has been made in regard to the further consultation with the Australian Energy Infrastructure Commissioner and the Clean Energy Council.***

The Department is currently working through the NSW Government response to the NSW Agriculture Commissioner's Report which will include consultation with the Australian Energy Infrastructure Commissioner, Clean Energy Council and Insurance Council of Australia.

7. ***Has the Department conducted any consultation with the Insurance Council of Australia regarding this issue?***

As outlined in response to Question 6 above, the Department is currently working through the NSW Government response to the NSW Agriculture Commissioner's Report which will include consultation with the Insurance Council of Australia.

Flooding

8. ***It was noted at the Public Meeting and Site Inspection that it would be almost impossible to maintain pre-development water flow across the site to the same levels post-development, particularly given several dams on site will be infilled. How has local knowledge of water movement on the development site and the potential impact on dams both on the site and within neighbouring landholders' properties (particularly R21, for example) been considered in the Department's assessment?***

A detailed flooding assessment was undertaken by Footprint (NSW) Pty Ltd on behalf of the Applicant in accordance with the Secretary's Environmental Assessment Requirements for the project. The flood modelling relied on input parameters from the local environment including the local catchment, rainfall data and probable maximum precipitation, to determine the level of impact which project infrastructure (including infilling of farm dams onsite) would have on surface water flows within and adjacent the project site.

The flood modelling demonstrated that the project is not predicted to have a significant impact on flood behaviour for the 1% annual exceedance probability event. Importantly, the report concludes:

...peak flood levels and velocities are anticipated to remain relatively unchanged across most of the proposal area, due primarily to most of the infrastructure being located outside high hazard areas of the floodplain. Some minor increases in flood levels and corresponding decreases in velocity are shown to [occur] locally within the development footprint, however these changes are very localised and not anticipated to adversely affect adjoining properties.

To ensure this occurs, the Department has recommended Condition C25 be included in the consent, which requires the Applicant to:

...

(c) ensure the solar panels and ancillary infrastructure (including security fencing) are designed, constructed and maintained to reduce impacts on surface water, localised flooding and groundwater at the site;

(d) ensure the solar panels and ancillary infrastructure do not cause any increased water being diverted off the site or alter hydrology off site;

Landscaping & water

9. Has the Department considered additional water requirements to facilitate vegetation establishment and maintenance?

Yes, the Department considered water requirements for vegetation establishment and maintenance in our assessment.

As stated in Elgin's EIS, water usage for the project is predicted to peak during the construction phase, where water requirements would total approximately 28 megalitres (ML), for a period of approximately 12 months. To investigate the feasibility of water supply, Elgin consulted directly with Farra Civil Pty Ltd (a civil services contractor located in Bathurst) who confirmed its ability to provide the full 28 ML of water required for construction.

Further to this, the Department notes that the three nearest water sources have a total share component of 10,900 ML. The EIS demonstrates that, should there be any issues obtaining water from Farra Civil, the 28 ML of water required for construction of the Project represents only 0.3% of the available unregulated water from these sources. Importantly, water requirements during operations, including for vegetation establishment and maintenance would be significantly lower than this.

Finally, in addition to this 10,900 ML of unregulated water, harvestable rights from dams onsite could also be utilised to supplement purchased water arrangements if required. Using the WaterNSW harvestable rights calculator, Elgin confirmed that the maximum capacity of all harvestable right dams on the site is 12 ML.

Neither Council, nor DPE Water raised any concerns regarding the availability of water supply for the project.

Accordingly, the Department considers that Elgin has access to sufficient water for the project, including for vegetation establishment and maintenance.

If you have any questions, please contact me on [REDACTED] or via email at [REDACTED].

Yours sincerely,

[REDACTED]
Nicole Brewer
Director
Energy Assessments