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Dear Stephen,

Glanmire Solar Farm – Request for Information

12th December 2023

Please find our responses to the request for information on the 5th of December from the Independent Planning Commission, in reference to the State significant development application for the Glanmire Solar Farm (SSD 21208499). The request for information follows from the site inspection and community meeting carried out on the 30th of November 2023.

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Issue	Reference / Comment	Document Link
Heights		
<p>1. Please confirm the precise height of the proposed solar arrays (at both highest tilt on axis and when horizontal), substation, battery and security fencing.</p>	<p>As final design will occur subject to a competitive tendering process post-approval, most parameters are noted as ‘typical’ or ‘indicative’ at this stage. The maximum height of the arrays is stated, as 3.5m and this was the height used to model the visibility of the Project in the visual assessment. Figure 1 below shows the more typical heights of 2.5–3.0m.</p> <p>To provide more certainty to the community, Elgin are able to accept limits on heights if the IPC imposes these. In this event, the following are the maximum heights that would be appropriate:</p> <ul style="list-style-type: none"> • Maximum height of array when vertical = 3.5m • Maximum height of array when horizontal = Approximately 1.7m (see below plus 20cm panel depth) • Substation = 5.5m with the only taller structures being the lightning arrester poles, which are slimline poles with a maximum height of 15m (refer to Figure 2). • Battery container maximum height = 3.5m • Security fencing maximum height = 2.0m 	<p>Updated Project description, included as Appendix A of the Amendment report, section 1.1</p> <p>Amendment Report</p>

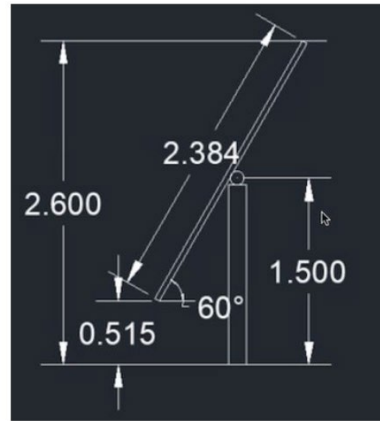


Figure 1 Typical array dimensions

1. Applicant and Project outline



Substation Measurement




Typical substation, Moberg Solar Farm (2010/04 connection)

Sunshine is Power

Glanmire EIS page 39

Figure 2 Substation measurements

Setbacks & buffers		
<p>2. Please confirm the precise extent of the proposed setbacks on the eastern and western boundaries of the development site, including the extent within these setbacks that is proposed for vegetation screenings, asset protection zones, maintenance tracks, and existing roads.</p>	<p>The setbacks are required by the Project commitments V3 (Landscape Management Plan) and BF3 (bushfire mitigation). These are shown on the Indicative layout as follows:</p> <ul style="list-style-type: none"> Western boundary – north of the riparian area: 10m wide native screening planting required plus 10m APZ required (at the very northern extent, incorporating a 4m wide access track within this) = 20m.  <p><i>Figure 3 Western boundary – north of the riparian area</i></p>	<p>Appendix A – Landscape Concept Plan page 6</p> <p>Amendment Report – A.2 Indicative infrastructure layout</p>

- Western boundary – south of the riparian area: Linear tree planting of 5m plus 10m APZ required (incorporating a 4m wide access track within this) = ~ 15m.

** Note the indicative layout shows the tree planting as 5m but the Landscape plan does not specify a required width. To provide more certainty to the community, Elgin are able to accept a specified setback of 5m, if the IPC choose to impose this.*

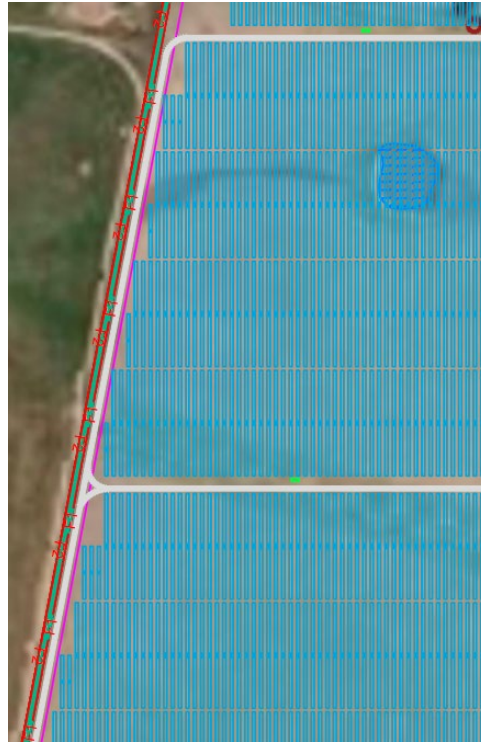


Figure 4 Western boundary – south of the riparian area

- Eastern boundary – south of the riparian area: 5m linear tree planting* plus 10m APZ = ~15m. It should be noted that Brewongle lane has a 20m wide road corridor which also separates the project from the adjacent landowners to the East of project and adds an extra layer of

protection on top of the 15m setback already included. This road corridor is managed by council and is not likely to be significantly altered throughout the life of the project.

** Note as above.*

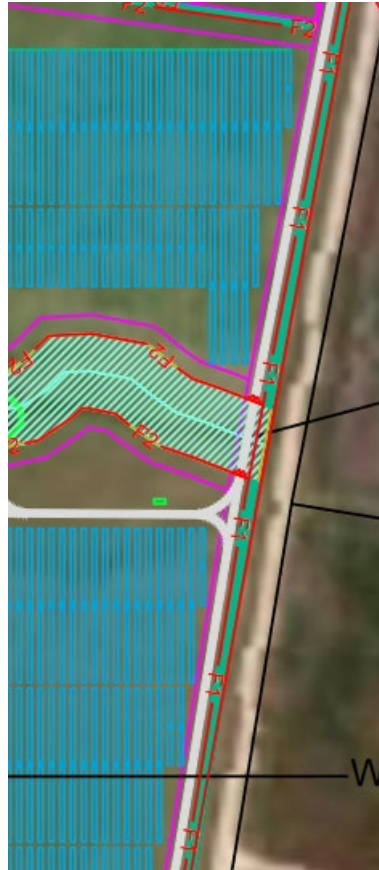


Figure 5 Eastern boundary – north and south of the riparian area

<p>3. Please confirm whether the western setback relies on adjoining land to provide an appropriate buffer.</p>	<p>The Large scale solar guideline (DPE, 2022) recommends a 30m minimum set back / buffer to mitigate any heat island effect on neighboring horticultural or cropping operations.</p> <p>On page 36 of the Submissions report, the Applicant justifies a lesser amount on the western boundary as any heat island effect is highly likely to be mitigated by the screen planting proposed between the Project. The Submissions report explains that the perimeter planting will affect the micro climate, producing shade and providing some protection from temperature extremes and strong winds. It is also noted that a track is located on the neighboring property along some of the western boundary; the guidelines are to protect horticulture and cropping not vehicles access so this track has been included in the buffer calculations below.</p> <p>The breakdown of the 'heat island effect' 30m buffer along the western boundary is:</p> <ul style="list-style-type: none"> • West boundary, northern section: the 30m buffer is mostly contained within the Project's perimeter road (10m) + screen planting (10m) = 20m. There is a residual width of 10m for a distance of 1,150m along this boundary. • West boundary, southern section: the 30m is mostly contained within the Project's perimeter road (10m) + screen planting (5m) + existing track on neighboring property (10m) = 25m. There is a residual width of 5m for a distance of 830m along this boundary. 	<p>Glanmire Solar Farm LVIA report (nsw.gov.au)</p>
<p>4. Please confirm the rationale for the proposed exclusion zone at the northern end of the site (south of the 300m setback to Great Western Highway).</p>	<p>This additional visual exclusion zone was incorporated into the layout in September 2022 to further reduce glimpse views from the highway. With the addition of this exclusion zone, the highway views on entrance to Bathurst (west bound traffic), including glimpse views, have been eliminated through setbacks and screen planting. The visual viewshed analysis led to these further setbacks to the north of the project.</p> <p>The size of the setback is irregular however the following measurements (measurements are provided to the edge of plantings) are 47m in the west, 116m at its maximum extent and 83m in the east (refer to Figure 6).</p>	<p>Glanmire Solar Farm LVIA report (nsw.gov.au)</p>

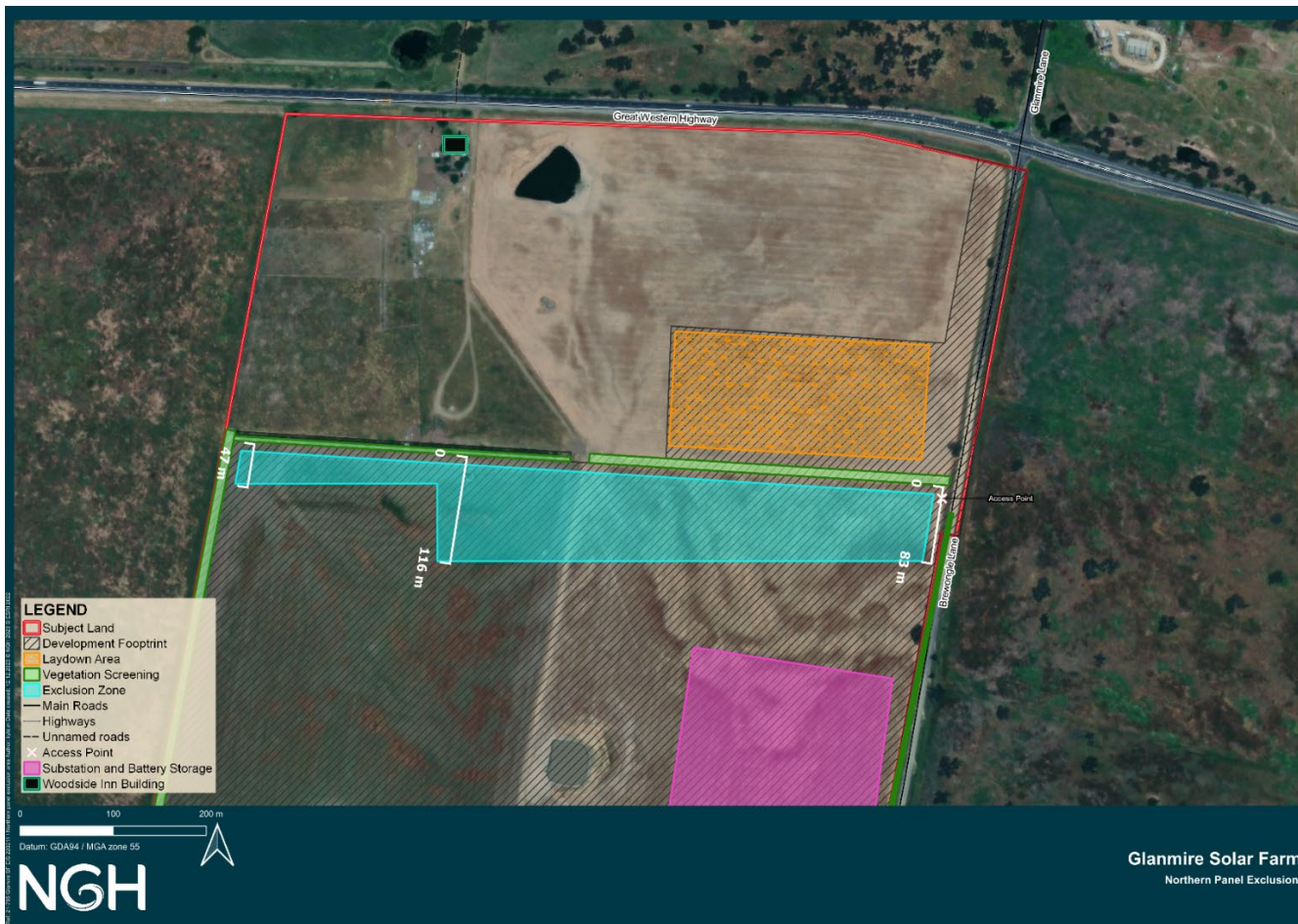


Figure 6 Panel exclusion areas

5. Please confirm the dimensions of the proposed southern setback.
 Note all setbacks should be calculated within the development site and not

The setbacks are required by the Project commitments V3 (Landscape Management Plan) and BF3 (bushfire). The set backs are carried through to the indicative layout (refer to Figure 4). The southern areas incorporate 3 planting zones: 10m planted screen along most of the southern boundary, a riparian

[Appendix A – Landscape Concept Plan](#)

encroach on or make use of neighboring properties.

zone buffering the waterway and a box gum woodland zone. A further 10m APZ is located between the plantings and the arrays. This incorporates a 4m access track.



Figure 7 Southern set backs shown in the indicative layout.

The setback is at its largest in the east and tapers to the west. Eastern, central and western setback distances have been measured at three points and mapped in Figure 7.

Eastern buffer = 297m setback from southern boundary +10m APZ

Approximate midpoint = 108m setback from southern boundary +10m APZ

Western boundary = 32m setback from southern boundary +10m APZ



Figure 8 Measured setback distances

Insurance

6. Please advise whether any consideration has been given to public liability insurance requirements for adjacent properties and whether any solutions are proposed to address

The Applicant for the Glanmire Solar Farm, will have insurance in place to cover damage to neighbouring properties as a result of Project activities. Consultation between Elgin Energy and several insurance providers has been undertaken to understand the potential for a neighbour's premiums to be affected by the

[Glanmire Solar Farm \(nsw.gov.au\)](http://Glanmire Solar Farm (nsw.gov.au))
page 74

<p>any increased costs for those landholders.</p>	<p>development of a solar farm. The key advice from these bodies is summarised below, as follows:</p> <p>It is acknowledged that increased insurance premiums and reinsurance are a real and genuine concern for adjoining land owners/holders. However, what is the likely impact, and any determination of the significance of this on insurance costs, or if it is a significant issue, must be based on material fact and quantitative evidence.</p> <p>The key matter raised in the relevant submissions is the possibility of reduced availability and increased cost where available, of public liability and broadform insurance where providers consider that on-farm activities and incidents may impact the proposed Glanmire Solar Farm. Submissions suggest that insurance providers are likely to deny insurance or increase costs for land holders/owners such that it will be unaffordable, where adjoining a solar farm use.</p> <p>How likely this is to occur, the significance of this impact, and whether it is a significant issue generally, can only be considered on the information available and the source of such information. This includes that provided in support of the submissions and that which is available in studies and from industry bodies.</p> <p>A detailed review of the submissions and supporting material found that no data or other material was provided that unambiguously linked an instance of denied insurance, restricted reinsurance or increased cost of insurance to an adjacent solar farm. Reference is made to indicative future premiums and risk generally. Primary source documentation, such as a quotation(s) or correspondence from an insurance provider confirming that a land holder/owner's risk profile had or would change due to proximity to a solar farm, did not accompany these submissions. It is acknowledged that relevant submissions were primarily made by persons with experience in the agricultural sector, for example, farmers and an insurance provider from the region, however the material provided is anecdotal and does not confirm any link between adverse insurance implications and adjoining solar farm development.</p> <p>In responding to these concerns, Elgin has sought to obtain information from direct sources. The Insurance Council of Australia, for example, has on each occasion when consulted about this issue, stated that they are not aware of any increased risk profile for farming properties that is attributable to neighbouring</p>	<p>Glanmire Solar Farm (nsw.gov.au)– page B-XII</p> <p>Glanmire Solar Farm Preliminary Hazards Assessment (nsw.gov.au)</p>
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	<p>solar farm/BESS developments. Other insurance industry bodies, including an expert broker, also maintain that there is no evidence of a causal link.</p> <p>This broker further noted the relevance of other risk mitigation activities to determining insured risk and subsequent premiums, an item which was raised in a submission against the solar farm. That submission, prepared by NLT Insurance Brokers Pty Ltd, identifies the importance of alternative mitigation measures (other than insurance) to be implemented by farmers and solar farm operators, which are critical to reducing risk. Such measures, implemented properly, reduce the significance of potential impacts and are, according to the broker contacted by Elgin, relevant to the determination of farming insurance eligibility and cost.</p> <p>Whilst Elgin cannot make assumptions about risk mitigation activities undertaken by farmers, numerous commitments to address the matters have been made by Elgin and raised in this submission, such as:</p> <ul style="list-style-type: none"> • establishing bushfire buffers/asset protection zones around solar farm infrastructure, as well as to neighbouring properties – this will mitigate the risk of damage should a fire spread from adjacent farm land; • dedicated water tanks for fire fighting that meet fire authority requirements are included within the design of the solar farm and fire suppression equipment would be integrated throughout the facility; • cleaning and maintenance – all solar farms implement regular cleaning and maintenance of solar panels, to ensure optimal generation. This would minimise any impacts that may arise from on-farm activities, such as spray drift or dust; and • risk management – solar farm construction and operation will be overseen by a specialist work health and safety officer, who will oversee the assessment of risk, development of management plans and implementation of risk mitigation measures. <p>This is consistent with the approach posited by both the objecting insurance broker’s submission and the broker who has provided advice to Elgin, as relevant to determining and downgrading a farm operator’s insurance risk profile. These commitments are publicly available and documented in primary source Project material. A review of academic and government source material was also undertaken to identify if this issue is of sufficient significance to</p>	
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	<p>warrant technical analysis or further inquiry. It was determined that no inquiries, research or ongoing reporting has been/is undertaken by the Productivity Commission or Australian Competition & Consumer Commission into this issue.¹ This was reflected in similar searches of academic databases.²</p> <p>The available evidence does not substantiate the view that farm insurance premiums are likely to increase, or that insurance is likely to become unobtainable should the solar farm be approved. Nor does it demonstrate a casual link between adverse insurance implications for farming operations in proximity to solar operations.</p> <p>This lack of evidence further suggests that this is not a significant issue, either in terms of cost/availability implications and as a widespread pattern within the insurance industry. It could be reasonably suggested that, for example, as large-scale solar development has occurred throughout Australia for over ten years, any significant insurance implications for neighbouring farm properties would by now be evident and/or the subject of inquiry.</p> <p>Elgin understands that the concerns of land holders/owners are genuine and has thus given substantial consideration to the matters raised in their submissions, as is demonstrated in this response and the prior response to submissions. No immediate solution in terms of offsetting costs is proposed, as the evidence does not support the view that insurance will be more difficult or expensive to obtain by virtue of proximity to a solar farm. It would not be reasonable to require such a financial commitment in the absence of quantitative data and other information.</p> <p>However, Elgin acknowledges that credible evidence may arise at a future date. Subsequently, they are committed to working with affected land holders/owners, government agencies, the insurance industry and renewable industry bodies to formulate an appropriate response should such a circumstance arise. Elgin will also maintain its own insurance that provides adequate coverage against the risk of loss or damage to the solar farm and</p>	
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¹ A search of the Productivity Commission and Australian Competition & Consumer Commission databases was undertaken using search terms including: ‘farm insurance’; ‘public liability insurance’; ‘renewable energy’; ‘solar farms’; and ‘insurance’.

² Searches using the abovementioned terms were undertaken through the Web of Science, Google Scholar and the Griffith University Library databases.

	<p>would preference first claim on such a policy(ies). A copy of insurance documentation can be provided upon request.</p>	
<p>Water storage and flooding</p>		
<p>7. Please confirm the water budget required for all uses, including:</p> <ul style="list-style-type: none"> • ongoing agricultural operations, • cleaning of solar panels, • vegetation establishment and watering, • dust suppression, • bushfire management, and • all other needs for the Application. 	<p>Construction</p> <p>Non-potable water for road construction and dust suppression for the construction period would amount to 20ML and Potable water for the construction period would amount to 8ML.</p> <p>Operation</p> <p>During operation, it is estimated that approximately 200KL per year of non-potable water may be required for cleaning solar panels, landscaping and for bathroom facilities at the O&M building. It is expected that some of this will be obtained from rainwater tanks which would be installed on the site, and some would likely be imported.</p> <p>A 40KL rainwater tank would be installed adjacent to the O&M buildings at the substation site to provide water for panel cleaning, irrigation and other non-potable uses, such as sanitary/domestic water and cleaning of equipment and plant.</p> <p>Water for bushfire mitigation will be non-potable and the locations and volumes of the storage tanks will be determined in the Bushfire Management Plan (BMP), following consultation with the Rural Fire Services (RFS).</p> <p>Indicatively, it is proposed to provide a 30KL non-potable water tank to the adjacent to the storage building. A portion (a minimum of 20KL at all times as per measure BF4) of this storage tank will be dedicated for firefighting purposes.</p> <p>A small amount of potable (drinking) water (up to 10KL) would be imported or filtered from rainwater tanks.</p>	<p>Amendment Report – Appendix A Updated project description</p> <p>Water for construction as per Table 1-3 of the updated project description.</p> <p>Water for operation as per page 22 of the updated project description</p>
<p>8. Please advise what water storage volumes are proposed to be held on-</p>	<p>See above. There would be a 40KL rainwater tank on site and a 30KL tank. The 30KL tank would be fitted with the 65mm Storz outlet, would accept rain water</p>	

<p>site and whether additional water sources such as dams are required.</p>	<p>but would be monitored and topped up so that it will have a minimum of 20KL of water at all times for fire fighting purposes.</p>	
<p>9. The Commission heard concerns at the Site Inspection, Locality Tour and Public Meeting regarding water storage, flow changes and potential flooding impacts, both on site and to neighbouring properties. Noting this, please advise how the first order stream flowing into R21 and shown in the 'General layout showing Development footprint and constraints' plan (Appendix A.1 of the Amendment Report – see marked up screenshot below) was considered during the Application's design and the final proposed solar PV array layout.</p>	<p>The Hydrological and Hydraulic Analysis assessed the risk of flooding throughout the site. It is completed in two stages (pre and post infrastructure) with the intention of ensuring the infrastructure will be located without significant impacts on offsite water flows or flooding and erosion (by concentrating water flow).</p> <p>The report notes</p> <ul style="list-style-type: none"> • <i>All watercourses within the proposal area would be described as ephemeral and would only contain flowing water during and shortly after rainfall events. There are also 9 small farm dams within the proposal area, mostly located on the existing watercourses.</i> • <i>Except for a small northern portion of the site (approximately 380m) which drains to the north towards the Great Western Highway, the proposal area typically falls from north-east to south and south-west with elevations ranging from about 780m AHD to 735m AHD.</i> <p>The tributary in question is shown in the figure below.</p>	<p>Hydrology Report– Appendix F – Flood Mapping</p> <p>& Mitigation measures W5, W6 and W7 Submissions Report - Appendix B Updated table of mitigation measures</p>

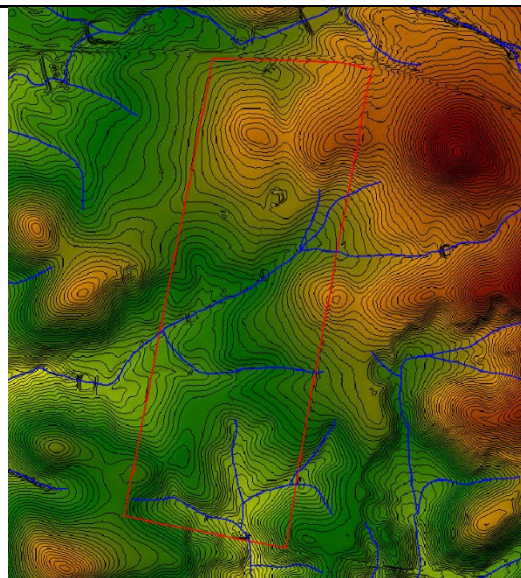


Figure 3: Terrain Analysis over Proposal Area (1m contour interval)



Figure 9 Terrain analysis, extracted from Hydrology and Hydraulic Analysis.

The hydraulic model was re-run with infrastructure to assess the impact on flood behavior for the 1% AEP event (1% Annual Exceedance Probability is used to describe how likely a flood level will be exceeded in any one year). It is noted that the assessment is conservative in that it assumes all dams are full and therefore generate 100% run off in a rainfall event.

The results demonstrate that there is not predicted to be a significant impact on flood behaviour for the 1% AEP event because of the proposed works. The flood level, depths, velocities and hazards remaining largely unchanged. Velocities over the Project site are shown to be contained in the range of plus or minus 0.25m/s when compared to pre-development velocities and therefore, would not result in any adverse impact to the stability of the bed and banks of existing waterways or contribute to degradation of the land by erosive flood forces.

The predicted change in flood level is shown below for the tributary in question showing the offsite impact is contained to no greater than 5cm in a 1% AEP event.

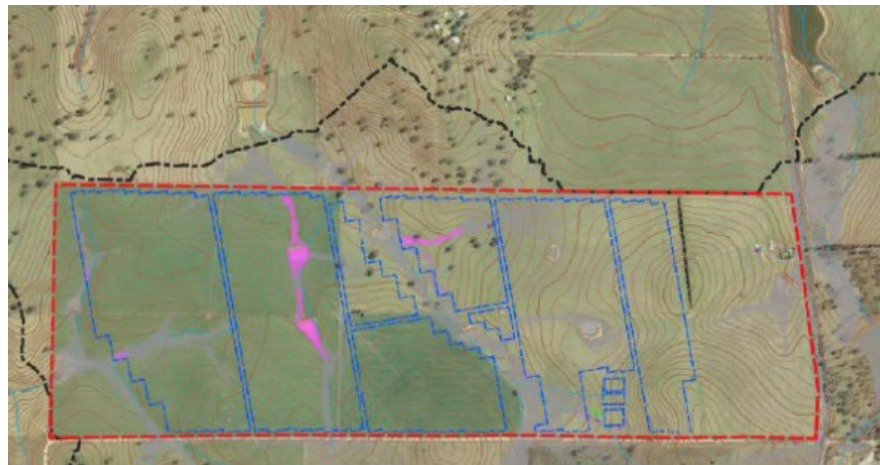


Figure 10 Change in flood level anticipated as a consequence of the Project; 1% AEP

To achieve this outcome, the final Development footprint and indicative panel array area is setback from flood hazard areas identified in the report. The row spacing between array modules also mitigates flooding risks. Retaining the soil and groundcover within the solar array areas beneath the panels during construction and in operation will ensure low levels of impact on local hydrology and protect surface water quality. It is a common misconception that solar panel arrays, being impervious, increase runoff. However, the solar panels are arranged in linear modules separated by a distance of approximately 5m

	<p>runoff from upslope panels will run under downslope panels thereby affording the opportunity for infiltration under each panel, with the exception of those panels which are most upslope (i.e. only the highest row of panels). When viewed as a whole, the ground surface area underneath the solar panel arrays available for infiltration is almost identical to that which currently exists and therefore any increase in runoff from the site for the arrays would be negligible.</p> <p>Introduction of panels mounts, footings and other solar farm infrastructures including access roads has the potential to change the 'roughness' of the ground surface. The change in 'floodplain roughness' associated with the proposed solar project was assessed using the Modified Cowan Method for Floodplain Roughness.</p> <p>This has been demonstrated in Table 7 of Hydrological Impact Assessment (Appendix D5 of EIS).</p> <ul style="list-style-type: none"> • The increase in roughness was applied to the pre-development roughness value 2 over the extent of the proposed solar array footprint increasing this roughness to 0.038. • The area nominated for the proposed substation, battery storage and O&M facilities, including parking areas was assigned a Manning's n value of 3 to reflect the impact of the proposed buildings and structures, including possible filling. • Access roads would be constructed from gravel and within the floodplain itself would be constructed at or near the existing surface level, therefore, would not result in adverse impact on flood behavior <p>Beyond the flood risk the Project commits to completing a Soil and Water Management Plan with a Site Drainage Plan and Erosion and Sediment Control Plan. The Project also commits to preparing and implementing a Spill and Contamination Response Plan. These plans will ensure no indirect impacts from the solar farm are experienced downstream.</p>	
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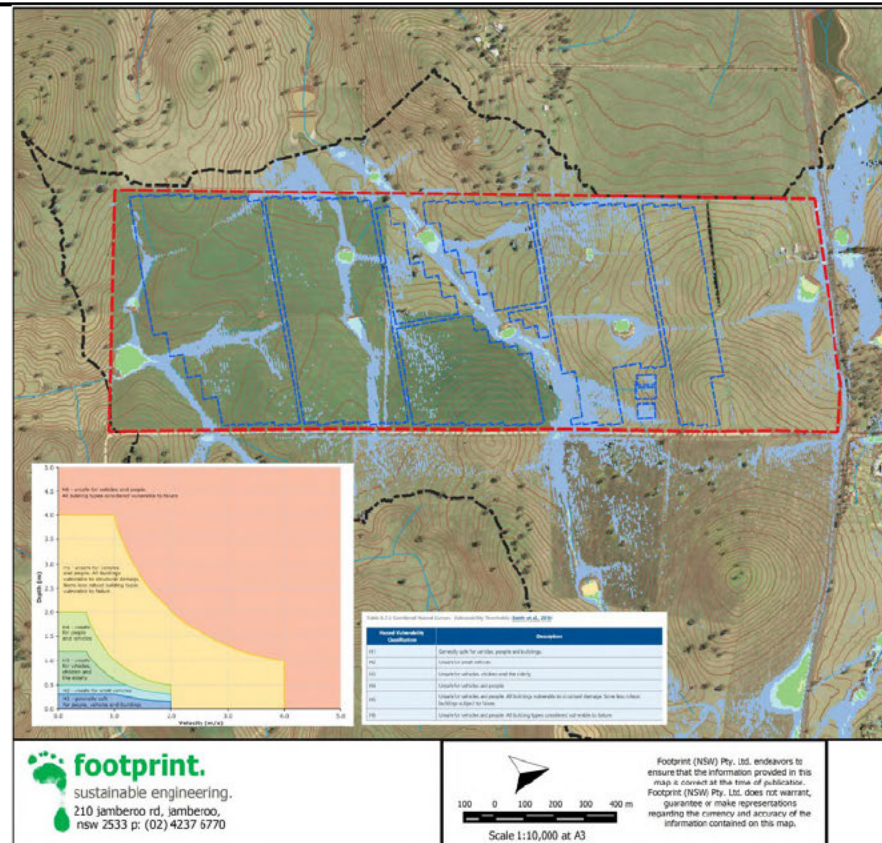


Figure 11 Post-development flood hazard

Glint & glare

10. Please confirm whether and to what extent engagement was undertaken with the landholders of R7 in relation to impacts of glint and

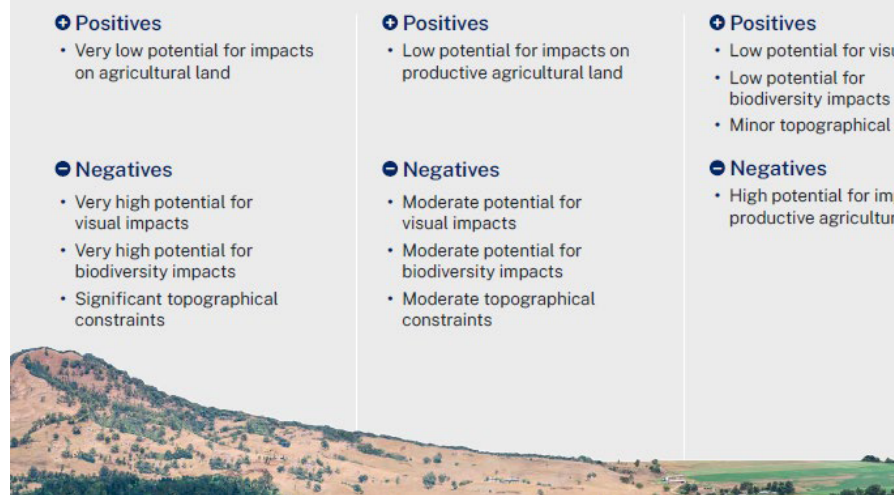
With reference to engagement around glint and glare impacts and LVIA mitigation, R7 was engaged via writing and also given the opportunity to discuss questions and/or concerns at a virtual near neighbour meeting, a follow up

<p>glare and subsequent mitigation (i.e. screening plantings and limiting the resting angle of all solar panels during backtracking to a minimum of 4 degrees).</p>	<p>face-to-face LIVA meeting, a Glanmire Action Group meeting and a Community Information Session. The engagement activities in detail included:</p> <ul style="list-style-type: none"> • R7 attended a virtual near neighbour meeting on 10th August 2022 and highlighted that their main concern was that neighbours hadn't seen updated plans or designs and could not provide comment until they had seen them. The objective for this meeting was to update neighbours on engagement to date and to explain the NSW Planning process in detail. The EIS technical assessments including the LVIA were still in progress at this point in time. • A September Project update newsletter which explained the results of the investigation of visual impacts and displayed an indicative site layout as well as landscaping overview. This included that the glint and glare study had been completed with one property affected to be mitigated with a 4-degree resting angle during backtracking reduces the potential glare risk. This was sent to R7 on 6th September 2022 via email. • An October Project update newsletter which explained an update on the investigation of visual impacts. This was sent to R7 on 4th October 2022 via email. • An online near neighbour meeting on 7th September 2022. A key part of the agenda was the presentation of photo montages and high-level findings of the LVIA. R7 was an apology for this meeting, however, R7's legal representation (HWLE) was present. • Follow up VIA meetings were offered to near neighbours via email on 12th October 2022 and were proposed to be held on Wednesday 19th October at a time that suited them. The meetings would occur when the Project team were in Bathurst and at a central location- KeyStone 1889 on Keppel Street. NGH Principal Planner was available to discuss the findings and mitigation, however no neighbours including R7, took up the opportunity. The LVIA specialist was not available to attend due to personal reasons. • A Community Information Session was held in Bathurst on Thursday 20th October from 12:00pm – 6:00pm at KeyStone 1889. This session was for anyone who wanted to ask questions or discuss the outcomes of the EIS assessments. This session was advertised in the Project 	
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	<p>update newsletter and in the Western Advocate newspaper. NGH and Elgin Energy were in attendance and R7 did not attend.</p> <ul style="list-style-type: none"> • A face-to-face meeting between Elgin Energy and the Glanmire Action Group on Thursday 20th October 2022 at 6:00pm at KeyStone 1889. This meeting was co-independently chaired and the objective for this meeting was for Elgin Energy and NGH to answer and discuss any questions or concerns the Glanmire Action Group representatives had concerning the EIS. While it is not clear if R7 is formally part of the action group, R7 did not attend. • Email correspondence between NGH and R7's legal representative through HWLW. R7 did not provide consent for photo montages to go on public exhibition. • The final LVIA was circulated to all neighbours including R7 via email on 10th October 2022. This included all details of the glint and glare assessment. <p>Future consultation would be carried out as part of Project commitment V2 that requires that the Applicant engages <i>'with affected residents as part of the development of the final Landscape Management Plan, seeking their input on key decisions that affect their residential views. An independent facilitator would be selected if preferred by residents'</i>.</p>	
Agricultural Land		
<p>11. 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, please clarify how the Application has been designed to reduce impacts Land and Soil Capability Class 3 land on the site consistent with the Department of Planning and Environment's revised</p>	<p>The Large Scale Solar Energy Guideline (2022) notes that a compromise is required in site selection, where there are competing constraints. The Glanmire Project site typifies the right hand side, where visibility and biodiversity impacts are low but where there can be a some impacts on existing agricultural land.</p>	<p>Submissions Report Appendix F Updated Soil and Agricultural Assessment page 22, section 3.1.2, Section 2.4.1 and Section 5.3.1</p>

2022 Large Scale Solar Energy
Guideline?

Figure 2: Site selection considerations

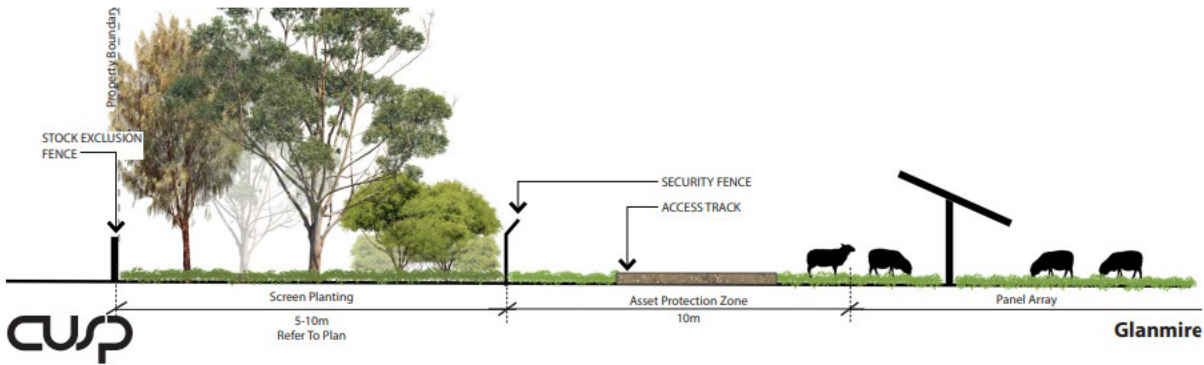


The Guidelines require the following key principals are applied:

1. Applicants should consider the agricultural capability of the land during the site selection process.
2. Applicants should avoid siting solar energy projects on important agricultural land as far as possible.
3. Agricultural assessment should be proportionate to the quality of the land and the likely impacts of a project.
4. Mitigation strategies should be adopted to ensure that any significant impacts on agricultural land are minimised.

These principles have been applied. Soil surveys of increasing intensity have been undertaken from early in the project development. An agricultural impact statement has been prepared to evaluate the impact. Mitigation centers on restoring land capability for all areas with the exception of the substation. As such the impacts are considered highly reversable with regard to agricultural

	<p>productivity in the long term. The conclusion of the assessment is that impacts are low and as such, the project complies with the guidelines.</p> <p>The Study Area is subject to livestock as the primary land-use, supporting sheep and lambs, and cattle, which are grazed on fodder crops and improved pastures rotation for breeding and fattening. Improved pastures typically include phalaris, ryegrass and clover, and intermittent fodder crops consist of wheat, oats and canola. At the time of inspection, sheep and cattle were observed to be intermixed over approximately 50% the study area (Plate 2), with the remaining 50% of the study area subject to sheep only.</p> <p>6% of the LGA has been estimated by the Australian Bureau of Statistics in 2021 as cropping land representing 8,705ha across the LGA of a total 152,636ha used for all types of agriculture in the LGA. This percentage does not specify the land or soil capability class of the 6%. Cited in the Minesoils report well in excess of 90% of the 159ha development footprint will not be permanently disturbed once post-construction remediation is complete. This leaves 15.9ha of the site as a maximum area that could be permanently disturbed, representing only 0.18% of the LGA’s cropping land as cited by Minesoils from the Australian Bureau of Statistics source. The actual % would be considerably lower in consideration of the lead paragraph noting 50% of the site is exclusively grazed.</p> <p>Regarding the Minesoils report it was verified that there is 40.6 ha of class 3 land on the Project site. Of this the only permanent removal of class three land would be 0.5ha of soils that intersect the substation. The remaining 40.1ha would either be completely avoided or impacted by solar infrastructure that the Project commits to Return 179 ha of disturbed land, including all LSC class 3 land where possible (subject to final layout), to its pre-Project LSC status and agricultural productivity following the end of life for the Project, through site rehabilitation (mitigation measure A9). A temporary loss of 40.1ha of class 3 soil with a commitment to rehabilitate to existing levels is not considered a significant impact to the LGAs cropping resource.</p>	
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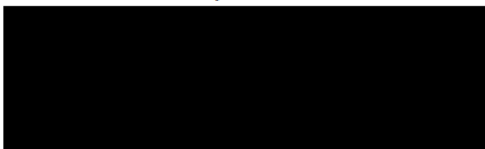
Fencing		
<p>12. Please provide detail of the type, height and location of the security fencing proposed for the site.</p>	<p>Steel security fence approximately 2m high with barbed wire topping, or similar. Located as follows:</p> <ul style="list-style-type: none"> On the inner edge of any proposed screen plantings (see example below). The screen planting buffers have been clarified in response the question 2, 3 and 5. 	<p>Amendment Report – Appendix A Updated project description</p> <p>Section 1.1.8. Fencing</p>
		
Landscaping		
<p>13. Has the Applicant considered and provided for sufficient water to facilitate vegetation establishment and ongoing maintenance?</p>	<p>Documented sources as well as specialists³ currently preparing NSW solar farm landscaping plans, attest that the key to success is preparation, spacing, managing herbivory pressure and species selection. They agree that:</p> <ul style="list-style-type: none"> Follow up watering is unlikely to be necessary even in very dry years where soil moisture has been managed by thorough preparation. 	<p>Glanmire Solar Farm LVIA report Appendix A (nsw.gov.au)</p>

³ Moir Landscape Architecture, LMP’s including Oxley Solar Farm; Lawrence and Carr 2022, Revegetation and regeneration in a changing climate: Lessons from New England.

	<ul style="list-style-type: none"> • Where watering is done, it is only once more (or in very severe conditions possible twice more) required within a month or two of planting. <p>The species have been selected to ensure the suitability of planting for the local conditions, the plant species proposed for these landscape treatments have been selected from the:</p> <ul style="list-style-type: none"> • Bathurst Region vegetation Management Plan 2019 Goulburn Mulwaree Development Control Plan 2009, Appendix B Species Lists • Local Native Seed Supply Strategy for the Central Tablelands Landcare District targeting Box Gum Woodlands, Greening Australia 2012 <p>Water for plantings has been considered in the landscaping component of the 200KL per year of non-potable water during operation. The expected water requirements would be determined by the planting contractor. However any water excess water that could not be sourced from onsite water tanks would be imported. Additional water resources in excess of 200KL would be required to establish the plantings over the first three months. However, this would occur during the construction phase when water allowance is much higher at 20ML.</p> <p>However extreme weather has impacted on screen establishment for at least one NSW solar project recently; Beryl Solar Farm. Lessons learned here are being applied elsewhere and include further consideration of plantings with regard to:</p> <ul style="list-style-type: none"> • Extreme summer temperatures in combination with low rainfall. • The need for follow up watering and weeding. • Timing of planting (avoiding premature planting and being prepared well in advance of) optimum seasonal windows - spring and autumn). • Soil remediation prior to planting (addressing any acidic and low fertility areas of soils). <p>For the Glanmire solar farm, the soil properties will be an advantage to providing moisture and fertility to provide effective establishment, as long as weeds, herbivory and planting timing is appropriately considered. Hence the water quantities are not anticipated to be high.</p>	
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If you require any more information from us please reach out.

Yours sincerely,



Tim Averill

Managing Director