

25 February 2025

Selwyn District Council

Attn: Jane Anderson, Consultant Planner

Via email: [Jane.Anderson@selwyn.govt.nz](mailto:Jane.Anderson@selwyn.govt.nz)

Kia ora Jane

**RE: RC245775 - Darfield Solar and Energy Storage Ltd Response to the Request for Further Information, Landscaping Matters**

This letter sets out the response from the Darfield Solar and Energy Storage Ltd (“**DSES**”) to the outstanding items from additional landscaping further information matters identified in memo provided with the Selwyn District Council (“**SDC**”) letter dated 12 November 2024, as identified in the response provided 10 February 2025. The responses are provided in the table below.

For completeness, the table includes all of the further information request matters, and outlines those that have been addressed in previous responses, with the date.

I trust the information in this response addresses the further information requests, however, if there are any outstanding matters please do not hesitate to get in touch.

Yours sincerely,



Andrew Brown

Mitchell Daysh Limited

[andrew.brown@mitchelldaysh.co.nz](mailto:andrew.brown@mitchelldaysh.co.nz)

SDC Request	DSES Response
<b>Transport</b>	
1. Please provide further information regarding the assessment of the right hand turns at the S73 / Homebush Road intersection, including <ul style="list-style-type: none"> <li>a. Please clarify why 80 vehicles per hour has been assumed as the maximum threshold for right hand turns</li> <li>b. Whether minor works are required to enable a through vehicle to safely pass a right-turning vehicle in the live land</li> </ul>	Addressed within response dated 16 January 2025.
2. Please provide correspondence from NZTA that demonstrates support for the proposed mitigation measures at the intersection during construction	Addressed within response dated 16 January 2025.
3. Please provide a copy of the LCSIA and correspondence with KiwiRail regarding the recommendations of the LCSIA	Addressed within response dated 16 January 2025.
4. Please provide an updated Glare Assessment report that demonstrates the extent to which the proposed boundary plantings mitigate glare effects on public roads and comment on how glare effects may create road safety effect prior to the plantings reaching a 2 – 3m height.	Addressed within response dated 16 January 2025.

SDC Request	DSES Response
<p>Additional Comments</p> <p>It is noted that the Plans provided do not appear to identify an intended parking area. It is considered likely that there will be sufficient space on site to accommodate this. However, please note that additional consents may be required if the future parking area does not comply with the Partially Operative District Plan.</p> <p>In order to maintain the existing agricultural activities on site, it is anticipated that vehicles with agricultural implements (such as mowers, balers, drills and sprayers) may be required. In the event that agricultural implements will be required, the applicant may wish to consider the proposed setback of the solar array from internal and road boundaries and whether there is sufficient space for manoeuvring.</p>	<p>Addressed within response dated 16 January 2025.</p>
<b>Landscape (in letter)</b>	
<p>5. Please confirm the height / sizing or the warehouse and administration building</p>	<p>Addressed within response dated 16 January 2025.</p>
<p>6. Please confirm the anticipated standardised angle and subsequent height of the solar panel array that can be expected for most of the time (i.e. a 3m height for 90% of the time, 50/50 change ratio or otherwise)</p>	<p>Addressed within response dated 16 January 2025.</p>

SDC Request	DSES Response
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#### Landscape (in memo)

1. The following outlines information I require to finalise my peer review of the LVA for Resource Consent Application RC245775 for works associated with the ground-mounted agrivoltaic development located off Homebush Road, Darfield.	Noted.
2. Regarding the Visual Simulations please:	
i) Provide a visual simulation image from Viewpoint 7 and/or Viewpoint 8 including the construction access and proposed entranceway.	i) A visual simulation from Viewpoint 7 is included within Attachment 1, on pages 18-19. It includes simulations with and without established adjacent mitigation planting either side of the construction access and permanent entranceway.
ii) Provide a visual simulation image from Viewpoint 14 including the substation / ancillary buildings etc.	ii) A cross-section of the proposal from Viewer Location 14 through to the adjoining Fonterra Factory is included within Attachment 2, and includes the proposed substation and associated ancillary buildings.
iii) Provide a visual simulation image from Viewpoint 19 and/or 25.	iii) Addressed within response dated 10 February 2025.
iv) Provide an additional visual simulation from Viewpoint 3 facing north / northwest towards the Fonterra factory to depict the effects of the removal of the existing shelter belts within the site.	iv) Addressed within response dated 10 February 2025.
v) Provide location maps on each visual simulation image page.	v) The previously-provided visual simulations have been updated to include a location map, and are included in Attachment 1.
vi) Provide a summary of the depiction of growth time post planting /	vi) Addressed within response dated 10 February 2025.

SDC Request	DSES Response
<p>implementation of the landscaping shown in the mitigation planting simulations (i.e. temporal data; 4 years growth or otherwise).</p> <p>vii) Confirm the mitigation planting simulations shows the plants at a 3-metre height.</p> <p>viii) Outline whether the planting shown on the montages based on the Option 1 or Option 2 arrangement.</p>	<p>vii) Addressed within response dated 10 February 2025.</p> <p>viii) Addressed within response dated 10 February 2025.</p>
<p>3. ZTV / Viewpoint Map(s); please:</p> <p>i) Confirm whether the ZTV map modelling includes existing shelter belts and vegetation within the subject site (that have been proposed to be removed) and confirmation that the proposed mitigation planting has not been included in the ZTV modelling.</p> <p>ii) Remove the Viewpoint Locations data from the ZTV Map and provide as a high-quality JPEG (for better resolution to cross reference the rural residential dwellings with visibility identified from the ZTV DSM model).</p> <p>iii) On the Viewpoint Location Map reduce the size / opacity of the Group labels on the plan and provide as a high-quality JPEG.</p>	<p>i) Addressed within response dated 10 February 2025.</p> <p>ii) The ZTV map has been separated from the Viewer Locations map, and is provided as a high-quality pdf in Attachment 3.</p> <p>iii) The Viewer Locations map has been separated from the ZTV map, and has had additional detail regarding the location of dwellings included to address this matter. These are saved as a high-quality pdf in Attachment 4.</p>

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<p>iv) On the ZTV mark a general distance circumference (dotted line area) from the outer edges of the site up to 2 km away<sup>1</sup> of which the modelling has been undertaken i.e. model extents.</p>	<p>iv) A 2km radius from the proposal has been added to the ZTV map provided in Attachment 3.</p>
<p>4. Please provide an assessment of how the mitigation planting aligns with the Selwyn District Council planting guides, including the Land Drainage Planting Design, the Trees and Vegetation Policy documents and any other relevant documentation. Please refer to other relevant SDC information, such as the Native Planting of Canterbury Plains information for suitability of species. Additionally, for the Mitigation planting:</p> <p>i) Please provide the Planting Plan as a high-quality JPEG / PDF plan with dimensions of the recommended mitigation planting shown in more detail.</p> <p>ii) Please mark on the anticipated location of the three typologies on the Suggested Plant Species list (being Exotic single species border, Native single species border and native mixed species border) on the Planting Plan.</p> <p>iii) Please mark on the Planting Plan the existing overhead 66kV line (to</p>	<p>Addressed within response dated 10 February 2025.</p> <p>i) The updated Mitigation Planting Plan has been provided as a high-quality pdf in Attachment 5.</p> <p>ii) The updated Mitigation Planting Plan and supporting Suggested Plant Species List (Attachment 5) have been amended so that the correlation between the two is clearer. Reference to the existing shelter belts plant species has been removed from the Suggested Plant Species list. Reference to the Native Single Species Border planting option has also been removed from the list and from the plan.</p> <p>iii) The amended Mitigation Planting Plan in Attachment 5 also now includes the location of the 66kV line.</p>

SDC Request	DSES Response
<p>understand where constraints to height / maximum clearance areas exist).</p> <p>iv) Please confirm the minimum offset from the planting to the panels to remove any potential effects of shading (from planting on to the panels) and outline what is the maximum height that planting can be established at adjacent to panels (to remove any risk of shading to the effectiveness of the panels).</p> <p>v) A brief statement on the anticipated long-term maintenance of plants including for example, infill planting, or maximised height etc.</p>	<p>iv) Addressed within response dated 10 February 2025.</p> <p>v) Addressed within response dated 10 February 2025.</p>
<p>5. Please provide a brief assessment / summary and subsequent ratings from the recreational areas in the Canterbury foothills, including the views from Mount Oxford (etc) (noting that the Fonterra dairy factory is clearly visible from these locations). Being that these are highly memorable, frequented and distinct recreational areas in the Selwyn District, please note the overall visual effects, particularly of the effects of the glint and glare, when viewing down from these locations.</p>	<p>Attachment 6 is a memo providing assessment of this matter.</p>

SDC Request	DSES Response
6. A description / review of the landscape cumulative effects of the proposal.	Addressed within response dated 10 February 2025.
7. Please explicitly list / confirm, and mark on an aerial map, where the temporary effects noted as 'low-moderate' and 'moderate' will be experienced from and for how long, noting that the LVA outlines construction time frames at 18 months and plant growth to take full effect at 4-6 years <sup>2</sup> .	A map showing the temporary effects ratings for the relevant Viewer Locations is provided as Attachment 7.
8. Please provide a further description and associated example image of the fencing being this will be visible from the surrounding areas i.e. what is the type and anticipated appearance of security fencing (itemised at deer-style security fence at 2.4m high).	Addressed within response dated 10 February 2025.
9. Proposal descriptors:  i) The LVA notes that 'PV tracking management will be used to mitigate the effects of glare while the screen planting grows'. Please provide a summary of how this is to occur and for what period of time.  ii) Please provide a review of what level of glint / glare reduction is to be expected from anti reflective coating.	Addressed within response dated 10 February 2025.



SDC Request	DSES Response
<p>iii) Further details, including the overall extent of re-grassing / grassed areas, extent of areas of grazing, when this will be implemented and any maintenance of planting / fencing to support anticipated grazing under and around the solar panels (the LVA notes ‘will retain pasture and sheep grazing beneath the PV structures’).</p>	
<p>10. Should you require any further detail or would like to discuss matters raised in this RFI please do not hesitate to contact me on the details below.</p>	<p>Noted.</p>
<b>Ecology</b>	
<p>7. Please provide a complete vegetation species list and descriptions of the habitats present</p>	<p>Addressed within response dated 16 January 2025.</p>
<p>8. Please provide a full list of bird species found in the desktop survey and an assessment of the likelihood of these species being present at the site.</p>	<p>Addressed within response dated 16 January 2025.</p>
<p>9. Please provide results from fish surveys (either as a standalone methodology), or in combination with</p>	<p>Addressed within response dated 16 January 2025.</p>

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eDNA metabarcoding, following the 6-replicate methodology	
10. Please provide evidence of an assessment of species potentially present within the area, and surveys for lizards or justification as to why this is not necessary at the site. Surveys should be undertaken using DOC approved methods by an appropriately qualified and permitted herpetologist.	Addressed within response dated 16 January 2025.
<b>Highly Productive Land</b>	
11. Please advise if the applicant has investigated the economics of installing irrigation.	Addressed within response dated 16 January 2025.
12. Please advise if the applicant have a baseline nutrient loss (Overseer) for the property.	Addressed within response dated 16 January 2025.
13. There is limited detail on the type of Solar panels, apart from noting that they are single axis trackers. The type of drive mechanism is important as this can impact the farm management programme. The layout of them is also important for the movement of vehicles.  Please provide further information to address these matters.	Addressed within response dated 16 January 2025.

SDC Request	DSES Response
<b>Glint and Glare</b>	
14. Please provide a diagram with all dimensions of the solar array	Addressed within response dated 16 January 2025.
<p>15. Please confirm the following:</p> <p>Single Axis Tracking with Shade backtracking system.</p> <p>Orientation : 7.5467° ( This needs to be confirmed. Most east-west tracking arrays have rotation axis orientation along true north i.e. 0 ° )</p> <p>Max tilt angle : 60 °</p> <p>Rotation Axis : Height Above Ground 1.4m ( some heights noted to be 1.5m in Forgesolar data provided )</p> <p>Solar Panels :with Anti Reflective Coating</p> <p>Are Solar Panels arranged about Rotation Axis in : 1P ( single panel in portrait arrangement) or 2P ( 2 panels in portrait arrangement) or 1L (1 panel in landscape arrangement ) or 2L ( 2 panels in landscape arrangement) (confirmation of arrangement would be helpful)</p>	Addressed within response dated 16 January 2025.
<p>Additional Comments</p> <p>1. That given the maximum height of the proposed solar arrays are potentially 3.1m based on the drawings provided by the applicant NZ Clean Energy Ltd,</p>	Addressed within response dated 16 January 2025.

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<p>that any proposed landscape mitigation planting be at least 4m high to ensure adequate screening from any potential view by observer points.</p>	
<p>2. That landscape planting along Auchenflower Road and towards and around the Homebush Road and State highway 73 intersection be at least 4m high to ensure it is above any potential view of the solar arrays and be sufficiently dense enough to eliminate potential glare from the solar array.</p>	<p>Addressed within response dated 16 January 2025.</p>
<p>3. In relation to the above, to provide interim screening where plants still need to reach expected established heights to ensure mitigation of glare towards road traffic and so provide margins of safety to road traffic until planned established heights of plants can be reached.</p>	<p>Addressed within response dated 16 January 2025.</p>
<p>4. To ensure that the planned mitigation landscape plantings themselves do not create any hazard by obscuring any view towards oncoming traffic especially at the road intersections being considered.</p>	<p>Addressed within response dated 16 January 2025.</p>

SDC Request	DSES Response
<b>Contaminated Land</b>	
<p>16. Please confirm that the proposal will result in a change of land use and whether the proposal is a permitted activity under regulation 8(4)b and provide comment as to whether it is “highly unlikely that there will be a risk to human health if the activity is done to the piece of land”</p>	<p>Addressed within response dated 16 January 2025.</p>
<b>Noise</b>	
<p>The Assessment of Noise Effects has been peer reviewed by Marshall Day Acoustics (MDA). MDA have not requested any further information, however they have provided the following comments regarding the separation distance proposed by Styles Group (SG):</p> <p>“In their calculations, SG has used a piling rig sound power level of approximately 111 dB LWA (83 dB LAeq at a distance of 10 metres). Based on measurements we have conducted at other locations, piling sound power levels in the range 120 to 130 dB LWA are more typical, depending on the pile type and equipment used. Taking the median value of 125 dB LWA, a separation distance of approximately 200 metres will be required to achieve the nominated noise limit of 70 dB LAeq.”</p> <p>MDA are concerned that the “quantity, noise level and duration of percussive piling that is proposed will potentially</p>	<p>Addressed within response dated 16 January 2025.</p>

SDC Request	DSES Response
<p>result in adverse community reaction and requires further justification” and that 50m setback distance is likely to be too small for establishing communication protocol with residents.</p> <p>As a result, MDA accept SG’s recommendation that construction noise be managed and assessed in accordance with NZS6803: 1999 Acoustics – Construction Noise, noting that inherent in this standard is a requirement to adopt best practicable options to minimise noise from the site through the Construction Noise Management Plan (CNMP). Further to this, MDA have recommended a number of amendments to the consent conditions provided in Appendix 7 of the AEE. These amendments are attached as Appendix 3 for your information.</p>	
<b>Buildings</b>	
<p>17. Please provide additional information regarding the office building and parts warehouse to confirm compliance with the Partially Operative District Plan</p>	<p>Addressed within response dated 16 January 2025.</p>
<p>18. Please provide additional information regarding how the BESS will be housed</p>	<p>Addressed within response dated 16 January 2025.</p>
<b>Plains Flood Management</b>	

SDC Request	DSES Response
19. Please provide a Flood Assessment Certificate (FAC) to confirm compliance with Rule NH-R2. Note - the location of the office / parts warehouse and possibly the BESS will be required to determine the minimum floor level for the FAC. For information regarding this process please use the following link: <a href="https://www.selwyn.govt.nz/property-Andbuilding/resource-consent/flooding-assessment-certificates">https://www.selwyn.govt.nz/property-Andbuilding/resource-consent/flooding-assessment-certificates</a>	Addressed within response dated 16 January 2025.
<b>Geotechnical Assessment</b>	
20. Please provide a geotechnical assessment of the site from a suitably qualified and experienced practitioner.	Addressed within response dated 16 January 2025.
<b>Earthworks</b>	
21. Please confirm that the applicant will provide an ESDCP as a condition of consent	Addressed within response dated 16 January 2025.
<b>Reverse Sensitivity</b>	
22. Please provide further information regarding the potential reverse sensitivity issues for this Development Area	Addressed within response dated 16 January 2025.

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<p>It is also noted that the owners of Lot 2 DP 460046 have provided affected party approval for the proposal, but that the information they were provided with may not have clearly identified this potential future impact on the development of this area.</p>	<p>Addressed within response dated 16 January 2025.</p>
<b>General Matters</b>	
<p>23. Please confirm if NZ Clean Energy or Darfield Solar and Energy Storage Limited are an Electricity Operator as defined by the Electricity Act 1992.</p>	<p>Addressed within response dated 16 January 2025.</p>
<p>24. Please provide further information regarding what rehabilitation will be required to enable the site to continue to be used for land based primary production.</p>	<p>Addressed within response dated 16 January 2025.</p>
<b>Cultural Effects</b>	
<p>25. Mahaanui Kurataiao Limited have requested the following conditions as set out in their Cultural Advice Report, dated 18/11/24.</p> <ol style="list-style-type: none"> <li>1. The duration of this consent must not exceed 15 years.</li> <li>2. An Accidental Discovery Protocol (ADP) must be in place during all earthworks required to give effect to this consent to deal with archaeological finds and protect the interests of mana whenua.</li> </ol>	<p>Addressed within response dated 16 January 2025.</p>



SDC Request	DSES Response
<p>This condition does not constitute a response under the Heritage New Zealand Pouhere Taonga Act (HNZPT 2014).</p> <p>3. A site-specific Erosion and Sediment Control Plan (ESCP) for any earthworks required to give effect to this consent must be developed and implemented on-site during all earthwork activity. All contractors working on-site must be made aware of this plan and strictly adhere to it. This plan must:</p> <ul style="list-style-type: none"> <li>I. Ensure the protection of the surrounding environment including water soil and air.</li> <li>II. Restrict sediment runoff and erosion from entering the drain.</li> </ul> <p>4. An accidental discovery protocol for contaminated soils must be developed and implemented in case unexpected contamination is identified in the soil.</p> <p>5. Excavated contaminated material must be removed from site, disposed of at an appropriate facility, and not reused onsite.</p> <p>6. The applicant must establish and maintain indigenous planting on site to enhance the cultural landscape, increase indigenous</p>	

SDC Request	DSES Response
<p>habitat, filter sediment and sequester carbon.</p> <p>7. Indigenous planting must be established within a riparian buffer zone from the drains to protect and enhance the ecological values of the waterways. The plants must mature to a height of at least the width of the waterway.</p> <p>8. Untreated stormwater must not be discharged into the drains.</p> <p>9. A site survey for wetlands and springs must be undertaken on site by a suitably qualified wetland specialist prior to any works commencing on site.</p> <p>(a) Any waipuna/springs or artesian flows discovered must be protected, naturalised and not be capped.</p> <p>(b) Wetland areas on site must be retained and planted with an indigenous riparian margin.</p> <p>10. There must be a regular monitoring program for contaminants and the accumulation of heavy metals in soil.</p>	
<b>Engineering</b>	

SDC Request	DSES Response
26. Please advise if the applicant is proposing to change this, such as by carrying out a boundary adjustment or subdividing the residential area with access from Homebush Rd that is excluded from the solar farm works?	Addressed within response dated 16 January 2025.
<b>Stormwater</b>	
27. Stormwater must be managed onsite in accordance with the Environment Canterbury Land and Water Regional Plan. Measures included in Stormwater Management Plan are not reflected in design drawings. Untreated Stormwater must not enter the Water Race. It is unclear if the assessment includes consideration of both water races, and whether the proposed Erosion and Sediment Measures would apply to both water races.  Please provide comment.	Addressed within response dated 16 January 2025.
28. Please advise of any potential adverse effects on the stability of the support structures proposed to be located in close proximity to both water races.	Addressed within response dated 16 January 2025.
<b>Water Race Bylaw</b>	
29. Please advise how Water Race bylaw requirements will be met for the	Addressed within response dated 16 January 2025.

SDC Request	DSES Response
north-south water race (identified in light green in Figure 2 below).	
30. Please confirm that the required 5 metre setback will be provided for the east – west water race (identified in light blue in Figure 2 above, and noting that it follows a slightly different path from that identified in the plan) – noting that while the water race may be located with the Fonterra site in places, the setback will still apply.	Addressed within response dated 16 January 2025.
31. Please confirm that sufficient space will be provided for both water races for machinery for cleaning and maintenance purposes.	Addressed within response dated 16 January 2025.
<b>Additional comments</b>	
<p>Water Race –</p> <p>The Development Engineer has also provided the following comments regarding additional culverts on the water race:</p> <p>“The design proposes additional culverts on the water race, applicant is to be aware that new culverts on a water race will require engineering acceptance from SDC. Permission will also be required for any temporary shutdowns of the water race for culvert installation. Culvert</p>	Addressed within response dated 16 January 2025.

SDC Request	DSES Response
installation will also need to be witnessed by SDC staff.”	
Transport -  32. Please confirm the proposed surface of the haul road	Addressed within response dated 16 January 2025.
Water supply –  The Development Engineer has identified concerns regarding the likely availability/sustainability of relying on rainwater for the potable water supply of the compound.	Addressed within response dated 16 January 2025.

ATTACHMENT 1 - FULL VISUAL SIMULATIONS SET

ATTACHMENT 2 - CROSS-SECTION OF PROPOSAL, INCLUDING ADJACENT FONTERRA FACTORY

ATTACHMENT 3 - UPDATED ZTV MAP

ATTACHMENT 4 - UPDATED VIEWER LOCATIONS MAP

ATTACHMENT 5 – UPDATED MITIGATION PLANTING PLAN

ATTACHMENT 6 – MEMO REGARDING EFFECTS ON CANTERBURY FOOTHILLS AND MOUNT OXFORD

ATTACHMENT 7 – VIEWER LOCATIONS MAP WITH EFFECTS RATING