



TERRAIN SOLAR

Dear Claire,

The purpose of this letter is to propose a solution to Request 1(iv) from the Southern Joint Regional Planning Panel.

Request 1(iv) stated the following:

Provide the cells to be spaced a minimum of 7 metres between the structure to allow grazing

In presenting a solution to this response, I refer to Section 17.6.3 of the Statement of Environmental Effects (SEE) that details the commitment to managing groundcover, fuel load and weed management. It states:

The long-term performance measure is to establish a healthy, self-sustaining, noxious weed free groundcover over the solar farm that does not create a fuel hazard and minimises the potential for the potential for weed invasion into retained White Box Yellow Box Blakely's Red Gum Woodland and Derived Native Grasslands on the roadside verge of Old Sydney Road.

Apart from the initial selection of a native or non-invasive cover crop, how this can best be achieved, and maintained, through a combination of mechanical slashing and/or periodic crash grazing will require monitoring and implementation of adaptive management principles.

Specifically, this will entail adapting the frequency, duration and intensity of crash grazing, and the timing of any mechanical slashing to suit and accommodate the prevailing seasonal conditions. It will also require regular inspection across the site following intense rainfall events to check that drainage is stable and localised scouring hot-spots are not appearing.

The commitment in the SEE is to utilise mechanical slashing and/or periodic crash grazing. So whilst grazing is considered in our SEE & lease agreements with the landholder, and presents an ideal opportunity to combine energy generation & primary production, it is not the only way in which a healthy groundcover can be managed.

In providing a layout that allows for healthy groundcover, *Figure 1* details a typical tracker cross-section that commits to a minimum row-to-row spacing of at least 2.5m. This 2.5m spacing represents the minimum distance that the panels will be from each other and has greater relevance, to groundcover, than the tracker separation.

A study published by the National Renewable Energy Laboratory (NREL) in 2017 examined native vegetation performance under solar PV arrays in Colorado, USA. When examining a tracker system that had a 1.5 m space when level (row-to-row spacing), the study noted: "The tracking movement allows more sunlight to reach the ground than would most fixed panel arrays because they typically are oriented in east to west rows and are spaced to maximize interception of direct sunlight".

As mentioned above, the row-to-row to row spacing Terrain Solar are proposing is a minimum of 2.5m which is 1m more than the NREL study site. This will provide an optimal level of light and shading to support a healthy groundcover. As shown in *photo 1*, which shows an image of a tracker system in Mount Majura, ACT, groundcover thrives under the solar array due to access to both sunlight and shading.

We look forward to your feedback.

Regards

Simon Ingram
Director | Terrain Solar P/L

Figure 1: Typical Tracker Cross Section

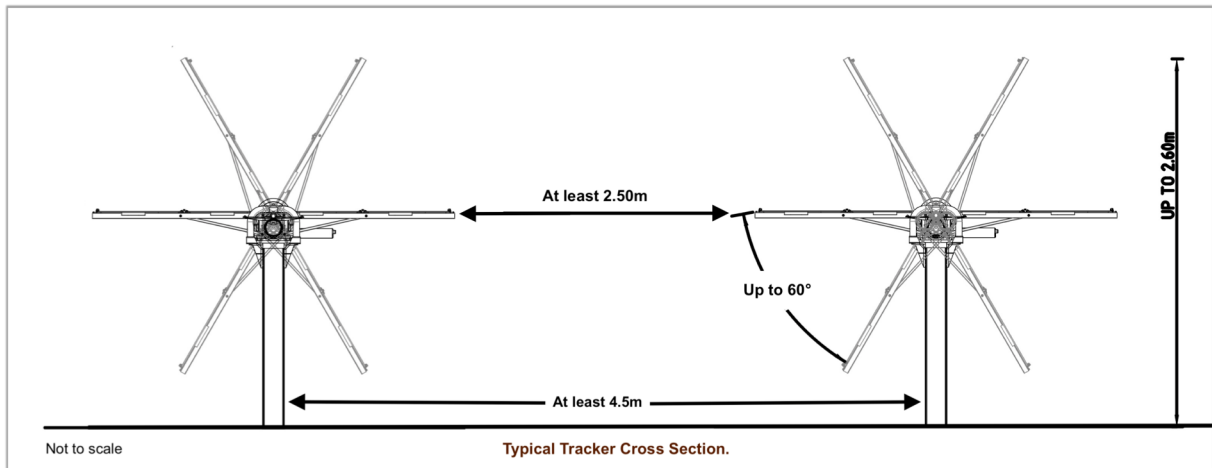


Photo 1: Groundcover under Mount Majura Solar Farm in the ACT

