Appendix B: Slope Suitability

As part of the Site Selection and feasibility analysis, the Proponent conducted an assessment to obtain high resolution contour and landform data for the Site. The data was used to refine the location of the site with respect to gradient and to support the environmental assessment for the Proposal.

To evidence that the gradients at the Site are suitable for the installation of a solar farm, the Proponent contacted Array Technologies, who manufacture the second largest single axis tracking system globally (by market share). They also have a strong presence in the Australian market.

Based on the contour data provided by the Proponent, Array Technologies advised that the Proposal Site was well within the slope tolerance requirements for the successful installation of their technology stating that

"We note that your site has gradients ranging predominantly between 0 and 5 degrees with pockets between 5 and 10 degrees and we do not consider that this would pose any particular issues outside of what would normally be expected for the construction, operation and decommissioning of a solar farm"

(More detail is provided in Figure 1 below).

Figures 2 and 3 provide images of recently constructed solar farms (using single axis tracking systems), at locations with slopes greater than those found at the Proposal Site.



Hello Richard,

Hope you are well- I wanted to share some facts regarding slopes and tracking systems, to dispel any misconceptions and present some facts, which have been borne out on more than 450 utility-scale tracking installations (16,000 MWdc capacity) in Australia and around the world.

- Array has constructed tracking systems on sites where slopes are up to 35 degrees in the East/West direction, and up to 15 degrees in the North/South. See a few pictures from a site in Turkey
 attached, to get an idea of what this looks like. In Australia, we have installed our tracker on a variety of sites (across 14 solar farms in the past 3 years) with slopes well above 5% such as
 (croients such as Rose River and others which are operational).
- Array's DuraTrack v3 tracker has a slope tolerance of up to 40 degrees in the East/West direction and up to 15 degrees in the North/South- well beyond what is slated for construction on the Stringy Bark solar farm.
- 3) We have considered the Stringy Bark site with the lidar data you have supplied which is at the low end for our slope capabilities, and consider the data to be of suitable quality for slope analysis and design. We have constructed sites in Australia with higher slopes and don't consider what is presented to be an issue for constructability of trackers.
- 4) We note that your site has gradients ranging predominantly between 0 and 5 degrees with pockets between 5 and 10 degrees and we do not consider that this would pose any particular issues outside of what would normally be expected for the construction, operation and decommissioning of a solar farm.

Finally- I would like to point out that in most cases any water that collects on the panels, whether through dew or rain, combined with the shading effect of the panels, often creates a strip of vegetation between rows that can help control any potential for erosion. As our tracker has significant slope capabilities and we can install on the Stringy Bark site without major civil works disturbing the soil (we simply use vibratory pile, direct-rammed foundations that are driven directly into the ground) there should be no issue and actually the foundation piles will help prevent potential erosion as they reinforce the ground from through additional structural support.

Hope this answers your questions, we have been building large-scale solar farms for over a decade and this site is one of the easier ones to install as the slopes are relatively minor.



Figure 1: Screenshot of email from Array Technologies following analysis of The Proposal's contour data



Figure 2: Image illustrating a newly constructed solar farm using Array Technology Trackers on slopes significantly greater than those found at the Proposal Site (up to 15 degrees North South and 35 degrees East/West, image courtesy of Array Technologies)



Figure 3: image showing under construction Solar Farm in Australia using Nextracker single axis tracking technology. Some slopes are up to 13 degrees, higher than slopes at the Proposal Site (Photo Courtesy of NGElectrical).