

Memorandum

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Attention: Brad Henderson

Company: Lodestone Energy Ltd

Date: 22 January 2026

From: Prepared by: Sue McManaway (Principal, Landscape Planner), Rhys Girvan (Senior Principal, Landscape Planner).

Message Ref: Response to Fast Track Panel - Haldon Solar Cumulative Landscape and Visual Effects

Project No: BM240408

This memorandum has been prepared by Boffa Miskell Limited (BML) in response to a request by Lodestone Energy to consider the cumulative effects of the proposed Haldon and The Point solar farms. The qualifications and experience of the authors is set out in '*LODESTONE ENERGY LIMITED HALDON SOLAR PROJECT Landscape Effects Evidence of Rhys James Girvan and Susan Jane McManaway Regarding Technical Assessment of Landscape Effects and Proposed Conditions*', dated 22 August 2025. This memorandum has been prepared in accordance with the Code of Conduct for expert witnesses contained in the Environment Court of New Zealand Practice Note 2023.

While not part of the existing environment, a proposal for a solar farm on "The Point", approximately 2.3km northwest of the Haldon Site, is registered on the Fast Track project list. Therefore, a closer review of The Point application has been undertaken to ensure we accurately capture the effects of the current proposal and confirm potential cumulative landscape and visual effects. Based on this, in landscape terms, we do consider there is likely to be some level of cumulative effect, albeit not significant¹.

To assist, we have reviewed **Appendix F – Landscape and Visual Assessment + Addendum and Visual Simulations** comprising the following:

- Rough Milne Mitchell Landscape Architects Limited. Landscape Assessment Report. Proposed Solar Farm, The Point, Mackenzie Basin. 25 May 2023.
- Rough Milne Mitchell Landscape Architects Limited. Addendum Landscape Assessment Report. Proposed Solar Farm. The Point, Mackenzie Basin. 30 April 2025; and
- Appendix 1 - Graphic Attachment and Appendix 2 – Visual Simulations.

The Point comprises a 670ha solar farm situated within a larger 973ha site north of the confluence of the Ōhau, Twizel, Pukaki and Tekapo Rivers, Lake Benmore and the Ōhau C Power Station. The proposal includes 736,866 solar panels situated on 28,341 solar tables extending north to south in a grid pattern throughout the site and perimeter mitigation planting of native shrubland.²

The Point is separated from the Haldon Project Site by the broad, braided Tekapo River and head of Lake Benmore and has a higher topographic profile (approximately 380-410 masl compared with the Haldon Site

¹ See section on Significance of Effects, Appendix 1 Method Statement, appended to Haldon Solar Project: Landscape Effects Assessment. Report prepared by Boffa Miskell Limited for Lodestone Energy Ltd, August 2025.

² RMM, Landscape Assessment Report, p7,9

which is approximately 360-380 masl). The rivers are some 10 – 20m below The Point, separated by steep escarpment faces.

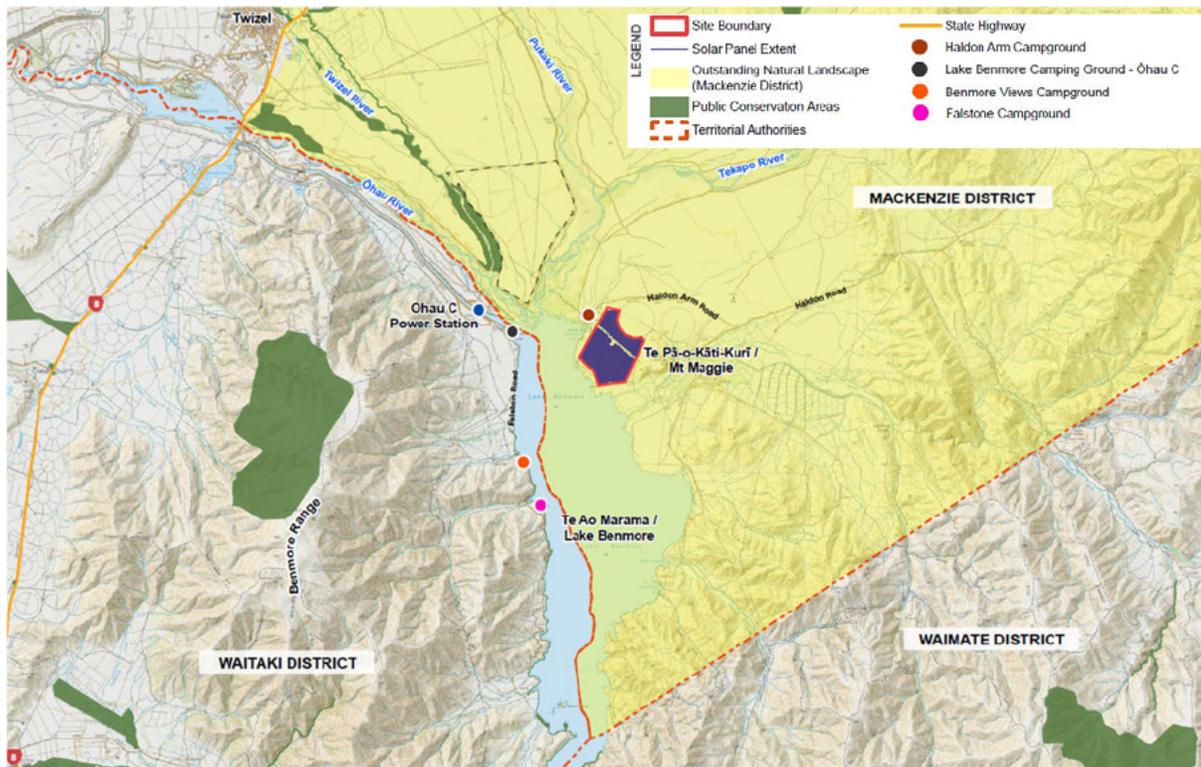


Figure 1: Location of The Point (dashed boundary line) in relation to the Haldon Solar Farm and landscape context

In regards to potential cumulative effects on **landscape** values, cumulative effects come into play in circumstances where ‘an additional effect takes a landscape beyond a ‘tipping point’ —which would normally require a benchmark against which the effects are to be measured. Such benchmarks might include the character envisaged in the district plan or the ‘capacity’ of a landscape to accommodate development before compromising its landscape values (its valued attributes).³

The combined presence of The Point and Haldon Solar Farm will locally increase the presence of renewable energy infrastructure and built form and reduce openness. Despite the proximity of the proposed solar farms, they will occur within two discrete areas, at different heights, separated by the Tekapo River and each with a different character. Their combined presence will be an appreciable change but as a dispersed pattern rather than a dominant new landscape character defined by arrays of solar panels and related infrastructure. The legibility of key landforms associated with both sites (outwash plains, braided rivers, terrace/scarp landform, Mt Maggie, enclosing ranges), the coherent character of the expansive basin and the wider basin ONL values, will remain.

In regards to potential cumulative **visual** effects, these can occur in a range of ways:

- in combination (seen together in the same view),
- in succession (where the observer needs to turn their head), or
- sequentially (where there is a time lapse between instances as people move through the landscape).

³ Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines, Tuia Pito Ora New Zealand Institute of Landscape Architects, July 2022., para 6.48

There is potential for both solar farms to be visible in combination and succession from:

- Remote locations to the north and east of the Haldon Site such as Haldon Road and Haldon Arm Road (refer to (BML) Haldon⁴; Site Context Photographs 1-2 and Visual Simulation 1 and (RMM) The Point⁵ VP 16). From these locations, the Haldon Solar Project will appear closer but oblique to the viewer, rather than in the central foreground, while development of the Point will be more distant, elevated and broken up by existing vegetation located along the Tekapo River. As viewers move west, closer to The Point, the midground vegetation increasingly screens that site from view.
- Nearby rivers (Ōhau, Twizel, Pukaki and Tekapo). There is a network of roughly formed gravel tracks to and across rivers in proximity to the two proposed sites where viewing opportunities encompassing both sites will be very limited due to intervening tall vegetation in the river beds as well as topography. However, there is an elevated section of track on the true right of the Pukaki River on the terrace adjacent to The Point where there is potential for eastern parts of the Haldon Solar Project to be seen in succession with The Point but in more distant views. These views more typically remain partial or glimpsed views observed through and beyond intervening riparian vegetation.
- Close locations to the south and southwest such as viewpoints on McAughtries Road including the dam lookout (refer to (BML) Haldon Site Context Photograph 8⁶, and (RMM) The Point⁷ VP 9) and the northern end of Falston Road including Lake Benmore Ōhau C Campground (refer to (BML) Haldon⁸ Site Context Photographs 9-13, Visual Simulations 2-3 and (RMM) The Point⁹ VP 10-12. From these locations, The Point will appear closer (approximately 1km from the dam lookout) but oblique to the viewer, while development at Haldon will be more distant (approximately 3.6km from the dam lookout) and appear as a compressed band contained between the fringe of lake edge vegetation and the backdrop of the hill slopes. The cumulative viewing experience will also occur in a context shaped by the existing hydro power generation.
- A range of locations on Te Ao Marama / Lake Benmore (refer to (BML) Haldon¹⁰ Site Context Photographs 6-7 and 11-12) and (RMM) The Point¹¹ VP 22. As people traverse the lake surface they may register both schemes as spatially separate dark bands around the lake head, typically in succession. Screening by the steep terrace/scarp associated with The Point and the intervening riparian vegetation considerably reduces clear, close sightlines; visibility will be intermittent and recessive and typically experienced in the context of a transitory, recreational focus.
- Elevated vantage points such as Benmore Range Easement Track. From points on these high ridgelines a broader footprint of both projects will be discernible in combination, still modest in proportion to the vast panorama of basin land use patterns rivers, ranges and lakes also visible. While in close proximity, the two projects will read legibly as two discrete development areas separated by the braided river and lake and seen in a context that reflects the existing hydro power generation environment. The Haldon Solar Farm will appear visually contained by landform and vegetation.

⁴ BML, Haldon Solar Farm Graphic Supplement: Photograph Location, p4 and Site Context Photographs 1 and 2, p8; Visual Simulation Locations, p16 and pp17-20

⁵ RMM, The Point Solar Farm Appendix 1: Viewpoint Location Plan, p22 and Viewpoint Location Photographs, p32; Appendix 2 Visual Simulations: Viewpoint Location Map, and Viewpoint 16 – Haldon Arm Road

⁶ BML, Graphic Supplement: Photograph Location, p4 and Site Context Photographs, p11

⁷ RMM, Appendix 1: Viewpoint Location Plan, p22 and Viewpoint Location Photographs, p27; Appendix 2 Visual Simulations: Viewpoint Location Map, and Viewpoint 09 – McAughtries Road

⁸ BML, Graphic Supplement: Photograph Location, p4 and Site Context Photographs, p12-14; Visual Simulation Locations, p16 and pp21-26

⁹ RMM, Appendix 1: Viewpoint Location Plan, p22 and Viewpoint Location Photographs, pp28-29; Appendix 2 Visual Simulations: Viewpoint Location Map, and Viewpoint 12 – Falston Road

¹⁰ BML, Graphic Supplement: Photograph Location, p4 and Site Context Photographs, pp10-11, 13

¹¹ RMM, Appendix 2 Visual Simulations: Viewpoint Location Map, and Viewpoint 22 – Lake Benmore

Potential for both solar farms to be experienced **sequentially** is limited. While the sites are approximately 2.3km apart at the closest point, access between them in this area is challenging with most of the tracks, particularly those that cross the rivers, typically more suitable for 4WD users and visibility intermittent.

For those travelling from SH8 (or the Alps to Ocean Trail) to the lakeside campgrounds, it is likely that cumulative distant views of the proposed Haldon Solar Farm Project would be screened by The Point as it will appear in the foreground and at a lower elevation. Travellers may first experience The Point from SH8 or the Alps to Ocean Trail although glimpses are distant are rated nil–very low¹² with clearer, increasingly oblique views developing on McAughtries Road.¹³ From the eastern end of McAughtries Road, views to Haldon are also obtained with intermittent and increasingly oblique and distant views possible while moving south along Falston Road to the campgrounds. Within this sequence, there is potential for both solar farms to be viewed together or in succession in places as previously described. They will appear spatially distinct, separated by distance, landform and vegetation, so that their arrays will not read as a single continuous development.

Overall, key findings in regards to cumulative landscape and visual effects are:

- When compared with the Haldon Solar Project, The Point is located closer to and more visible from accessible public viewpoints.
- There is potential for cumulative landscape and visual effects within the **moderate** range when considering effects of the two projects together, particularly from these more accessible views in which The Point will appear in the foreground and more visually prominent.

¹² RMM, pp21-23

¹³ Ibid, pp23-24