

Consultants Advice Notice

To	Sarah Brooks, Senior Environmental Planner, Helios Energy		
From	Nicholas Logan, Project Engineer, ITP Renewables		
Subject	Response to Mānīatoto Solar Farm Glint and Glare Traffic Effects Review		
Project No.	25038	CAN No.	003 v2
Date	1/07/2025	Pages	3

Background

ITP Renewables conducted the glint and glare study for Helios OTA Op LP's (Helios) proposed Mānīatoto Solar Farm at 48 Ranfurly-Naseby Road in Central Otago. During the resource consent process, the Central Otago District Council requested an assessment of glint and glare effects on the safety of the nearby roads. As such, Abley was engaged to undertake the road safety assessment by reviewing the following documents produced by ITP Renewables:

- Naseby Glint and Glare study Rev 02, by ITP Renewables, dated September 2023
- Consultants' Advice Notice (CAN No. 001) - Glare Study Addendum, by ITP Renewables dated 24 June 2024
- Consultants' Advice Notice (CAN No. 001 v2) – Minimum Screening Analysis for Mānīatoto Solar Farm, by ITP Renewables dated 30 April 2025.

Following the review, Abley requested two clarifications for the glare analysis, which are summarised in Table 1

Table 1: ITP Renewables' response to Abley requests for clarification

Abley Clarification	ITP Renewables' Response
Section 3.2 of the <i>Naseby Glint and Glare study Rev 02</i> states that it was assumed that the height of the observation points for road users was 1.5m, however as above we note that driver eye heights should be assessed at 1.15m (car driver) and 2.5m (truck driver). We recommend that ITP confirm whether this would change the conclusions of their assessment.	ITP Renewables amended the eye level of road users to align with Abley's comments, with our updated modelling identifying no yellow glare for road users while green glare occurred in similar sections of the road for both trucks and cars. As such, the glare effects do not change the conclusions of our assessment. Our findings from the updated study are presented in the section below.
It is unclear whether the <i>Consultants' Advice Notice (CAN No. 001 v2) – Minimum Screening Analysis for Mānīatoto Solar Farm</i> concludes that the landscaping is required in conjunction with a 10deg rest angle. Our understanding is that once the landscaping is established, there is no need to limit the rest angle. However, we recommend that ITP confirm this matter.	The results of ITP Renewables' <i>Consultants' Advice Notice (CAN No. 001 v2) – Minimum Screening Analysis for Mānīatoto Solar Farm</i> supersede that of the original study (<i>Naseby Glint and Glare study Rev 02</i>). Per the minimum screening analysis, both the modelled landscaping and a 10-degree rest angle are required from the first year of solar farm operation to mitigate yellow glare impacts. The 10-degree rest angle provides primary mitigation



with the landscaping providing secondary mitigation for residual glare effects. We adopted this approach to reduce the extent of screening required. The same configuration was applied in the modelling described in the section below.

The Landscape Planting and Maintenance Plan (dated 28 May 2025), prepared by Boffa Miskell reflects these requirements. Helios has further advised ITP Renewables that the detailed planting plan will specify a vegetation screen that achieves a height of 3m in Year 1 as a condition of consent.

Road User Eye Level Amended Analysis

ITP conducted modelling for road users using the recommended eye levels of 1.15 metres for cars and 2.5 metres for trucks. Trucks were modelled on Ranfurly-Wedderburn Road, Ranfurly Naseby Road, and Ranfurly Back Road, as these were identified as the routes of most concern in submissions during the resource consent process. All other parameters in the model remained consistent with the *Naseby Glint and Glare study Rev 02*, with the vegetation screening based on the *Consultants' Advice Notice (CAN No. 001 v2) – Minimum Screening Analysis for Mānīatoto Solar Farm*. The results are summarised in Table 2 below.

Table 2: Potential glare for road routes

Road Route	Green Glare (hrs/year)	Yellow Glare (hrs/year)	Comment
Ranfurly Wedderburn Rd Car	16.4	0.0	Up to 30 minutes of green glare between 1:15 pm and 2:15 pm, from 26 May to 17 July.
Ranfurly Wedderburn Rd Truck	16.3	0.0	Up to 27 minutes of green glare between 1:11 pm and 2:15 pm, from 26 May to 17 July.
Gimmerburn Naseby Rd	0.0	0.0	n/a
Brinsdon Rd	0.0	0.0	n/a
Naseby Link Rd	0.0	0.0	n/a
Fennessy Rd	0.0	0.0	n/a
Ranfurly Naseby Rd Car	4.5	0.0	Up to 14 minutes of green glare between 1:17 pm and 2:15 pm, from 26 May to 17 July.
Ranfurly Naseby Rd Truck	5.6	0.0	Up to 16 minutes of green glare between 1:16 pm and 2:16 pm, from 25 May to 18 July.
Bypass Rd	15.2	0.0	Up to 37 minutes of green glare between 11:13 am and 11:56 am, from 3 June to 10 July.
Ranfurly Back Rd Car	20.8	0.0	Up to 39 minutes of green glare between 11:07 am and 12:29 pm, from 27 May to 16 July.
Ranfurly Back Rd Truck	56.7	0.0	Up to 60 minutes of green glare between 10:52 am and 12:39 pm, from 11 May to 1 August.



Road Route	Green Glare (hrs/year)	Yellow Glare (hrs/year)	Comment
Glen Rd	3.6	0.0	Up to 12 minutes of green glare between 11:13 am and 11:44 am, from 3 June to 9 July.
Total	139.1	0.0	

Proposed Conditions of Consent

Following Abley's review of traffic effects, and through further email correspondence with Helios, all parties agreed that the following conditions should be applied upon granting consent:

- Contact Information: The consent holder must provide contact details for their agent responsible for addressing glint and glare complaints, ensuring that affected parties have a direct line of communication for reporting issues.*
- The consent holder must include (within an operational management plan for the site) procedures for reporting glint and glare issues by affected parties, including Road Controlling Authorities for any road network affected by glare. This includes:*
 - The process for lodging a complaint.*
 - The timeline within which the Consent Holder must acknowledge receipt of the complaint.*
 - A detailed timeline for the investigation and response process, ensuring that any substantiated glare issues reported are addressed promptly and effectively within a specified timeframe.*
- Review and Reporting: If complaints are received The Consent Holder must submit an Annual Report to the Consent Authority, summarising the glint and glare complaints received, actions taken, and the effectiveness of the mitigation measures implemented. The Annual Report may also recommend whether ongoing management of glint and glare issues is required along with any relevant supporting information*