

Glanmire Solar Farm

Visual Impact Assessment

- Introduce our team
- Requirements for Visual assessment (SEARs)
- Assessment approach for visual assessment
- Assessment approach for glare assessment
- Approach to avoiding, mitigating and/or managing potential impacts.

Glanmire Solar Farm

Visual Impact Assessment

Planning Secretary's Environmental Assessment Requirements

Visual – *including*:

- A detailed assessment of the impact of the project on the scenic quality and landscape character of Bathurst Regional City, including on any approaches to the city taking into consideration any values identified by the community and Council;
- A detailed assessment of the likely visual impacts (including any glare, reflectivity and night lighting) of all components of the project (including arrays, transmission lines, substations and any other ancillary infrastructure) on surrounding residences and key locations, scenic or significant vistas, air traffic and road corridors in the public domain; and
- Details of measures to avoid, mitigate and/or manage potential impacts.

Glanmire Solar Farm

Visual Impact Assessment

Assessment approach

Guideline for landscape character and visual impact assessment

Draft Large-Scale Solar Energy Guideline

- Visual amenity impacts
- Glint and Glare management



Draft Large-Scale Solar Energy Guideline

December 2021





Transport for NSW

Guideline for landscape character and visual impact assessment

Environmental impact assessment practice note EIA-NO4

Centre for Urban Design



Draft Large-Scale Solar Energy Guideline

Glanmire Solar Farm

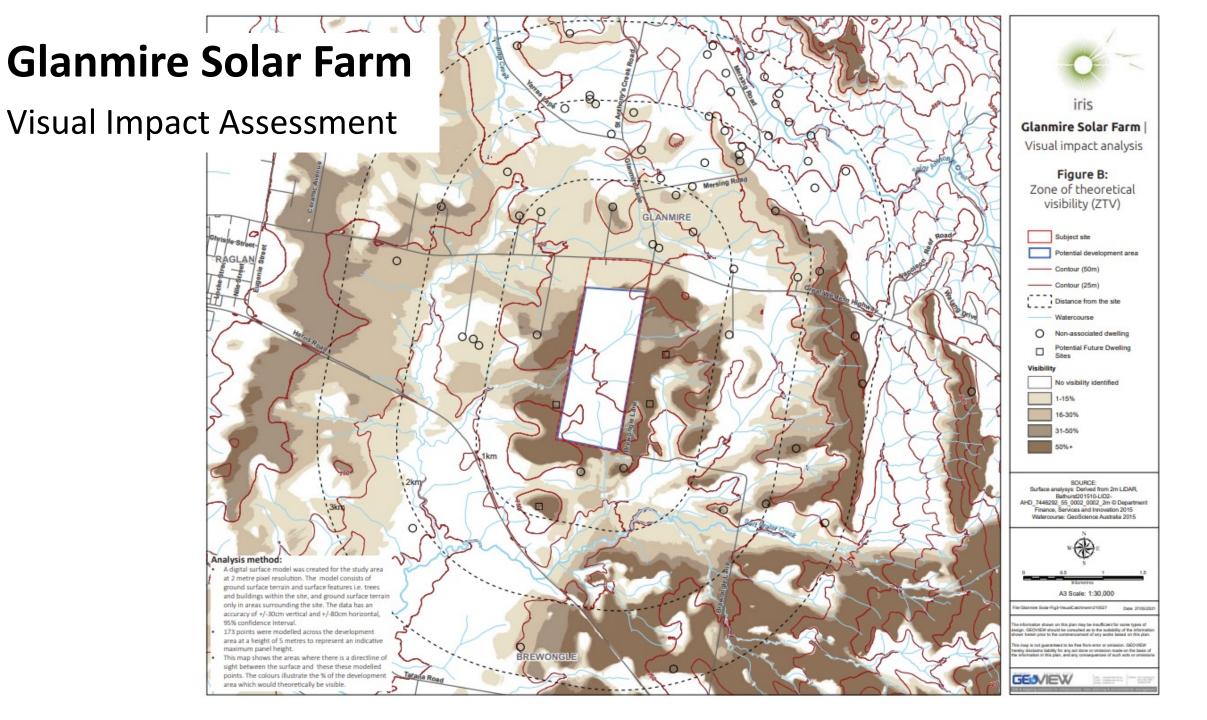
Visual Impact Assessment

Draft Large-Scale Solar Energy Guideline

Visual amenity impact methodology

- Preliminary assessment tools
- Photomontages

	Step 1: Preliminary Assessment Tool • Apply the Preliminary Assessment Tool to the preliminary layout to determine viewpoints requiring assessment	
Stage 1 Preliminary	Step 2: Topography Mapping • Undertake viewshed analysis to reduce viewpoints requiring assessment (optional) • If more than 50 viewpoints identified, undertake reverse viewshed analysis	
Visual Assessment	Step 3: Preliminary Consultation • Undertake consultation on preliminary layout, areas of scenic quality and sensitivity of viewpoints	
	Step 1: Refine Viewpoints • Eliminate any viewpoints that would not be impacted by providing evidence that there is no line of sight to the project	
	Step 2: Visual Magnitude • Apply the Visual Maganitude Tools to determine the visual magnitude (apparent size) of the project.	
	Step 3: Visual Sensitivity • Determine visual sensitivity by establishing the scenic quality and viewer sensitivity of each viewpoint.	ultation
	Step 4: Visual Impact • Combine the visual magnitude and visual sensitivity in the the visual impact matrix to determine the impact. • Prepare photomontages for each viewpoint.	Community Consultation
	Step 1: Performance Objectives • Use the visual impact rating to determine performance objectives.	
Stage 3 Objectives and Mitigation	Step 2: Mitigation • Develop mitigation strategies (if required) in consultation with affected landowners. • Prepare photomotages of mitigation measures	
igure 1. Stages in th	e visual assessment process	



Glanmire Solar Farm

Visual Impact Assessment

- What is glare
- Glare assessment approach
- Solar Glare Hazard Tool

Table 2. Glint and glare requirements

EIS glare assessment requirements

- a description of the proposed PV panels including:
 - whether the PV panels will be multi-axis tracking, single axis tracking or fixed (where single-axis tracking the axis of rotation should be identified)
 - the light absorption efficiency or refractive index values of the PV panels to be used for the project
 - whether any tracking will include backtracking operations and the hours of occurrence and duration of these operations
- identification of receivers within 4 km,
- justification for any receiver that do not warrant a glare assessment including supporting evidence
- glare modelling results that indicate the expected duration of glare during the day and throughout the year at each potential glare receiver
- categorisation of the impacts for each viewpoint in accordance with the impact rating and objectives in Table 3
- identification of existing vegetation or built structures between the solar energy project and residential receivers and an assessment of whether these features would reduce the modelled impacts
- details of strategies to either avoid or mitigate unacceptable glare impacts to identified residential receptors.

iris

Glanmire Solar Farm

Visual Impact Assessment

- Next Steps
 - Further field assessment
 - Preparation of photomontages
 - Prepare final VIA report
- Questions?