Landscape and Visual Assessment

Daroobalgie Solar Farm

Daroobalgie Solar Farm is a proposed renewable energy project located approximately 11 kilometres northeast of Forbes in NSW. The Project would comprise of a solar farm (approximately 100 MW) and transmission line to connect the solar farm to the existing electricity transmission network. The Project would provide enough electricity to power the equivalent of 34,000 homes each year.

Landscape and Visual Impact Assessment

An independent assessment of the landscape and visual impacts of the Project is being undertaken by SMEC Australia Pty Ltd. This assessment will inform the Environmental Impact Statement for the Project.

Project Components

Solar farm	▪ Approximately 420,000 photovoltaic solar modules will be installed on trackers that rotate to follow the sun. Modules will be a maximum four metres high ▪ The substation, battery energy storage system and operations and maintenance building are proposed to occupy the northwest corner ▪ The tallest component of the substation is the landing gantry that can reach approximately 12 metres and 14 metres ▪ Perimeter fencing is proposed to be 2.1 metres high	
Transmission line and switchyard	▪ 132kV transmission line with monopole structures approximately 25 metres in height and typically spaced between 100 and 300 metres apart ▪ Switchyard adjacent to existing transmission line with tallest component approximately 14 metres	

Impact Assessment Approach

Landscape and visual impact is determined by assessing the landscape/visual sensitivity and the proposed level of change.

Landscape sensitivity	Visual sensitivity	Proposed level of change
The extent to which the landscape is considered able to accept change of a particular type and scale without adverse effects on its character.	The sensitivity of a viewer at a viewpoint is dependent on: ▪ the importance of the view ▪ number of viewers and the type and duration of viewer activity ▪ what the view represents	Nature, scale and duration of the change that is expected to occur.

Preliminary Findings

Potential Landscape Impacts

The typical landscape character of the study area is classified as 'Agricultural Plains'. The Agricultural Plain is a landscape that has been highly modified from its natural state via the removal of vegetation, presence of roadways, dwellings, agricultural buildings and domestic scale electricity infrastructure. Therefore, due to the extent of modification, it is considered to have some capacity to absorb the type of change envisaged by the project.

The proposed development is not expected to fundamentally change the landscape character as it will occupy only a relatively small proportion of the overall extent of the Agricultural Plains landscape. Therefore, the expected impact rating on the landscape has been assessed to be minor.

About Pacific Hydro

Founded in Australia in 1992, Pacific Hydro operates a high quality, diversified portfolio of wind, solar and hydro renewable assets in Australia, and has a significant pipeline of renewable projects under development, as well as a growing electricity and gas retail business, Tango Energy. Pacific Hydro is owned by State Power Investment Corporation (SPIC). SPIC is one of the top five power generation groups in China.

Potential Visual Impacts

Visual Impacts have been assessed from eight representative public viewpoints. The viewpoint with the greatest potential visual impact (minor – moderate impact) is from Troubalgie Road at the northwest corner of the solar farm site. An image of the proposed development from this viewpoint is shown below.

Proposed solar farm from the northwest corner of the site without mitigation

Proposed Mitigations

A Landscaping Plan will be prepared for the Project. The plan will identify the type and extent of screening vegetation that will be planted around the boundary of the solar farm site and any other locations required to mitigate against visual impacts.

Proposed solar farm from the northwest corner of the site with mitigation (landscaping)

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