

# Traffic and Transport Assessment

## Darroobalgie Solar Farm

Darroobalgie 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.

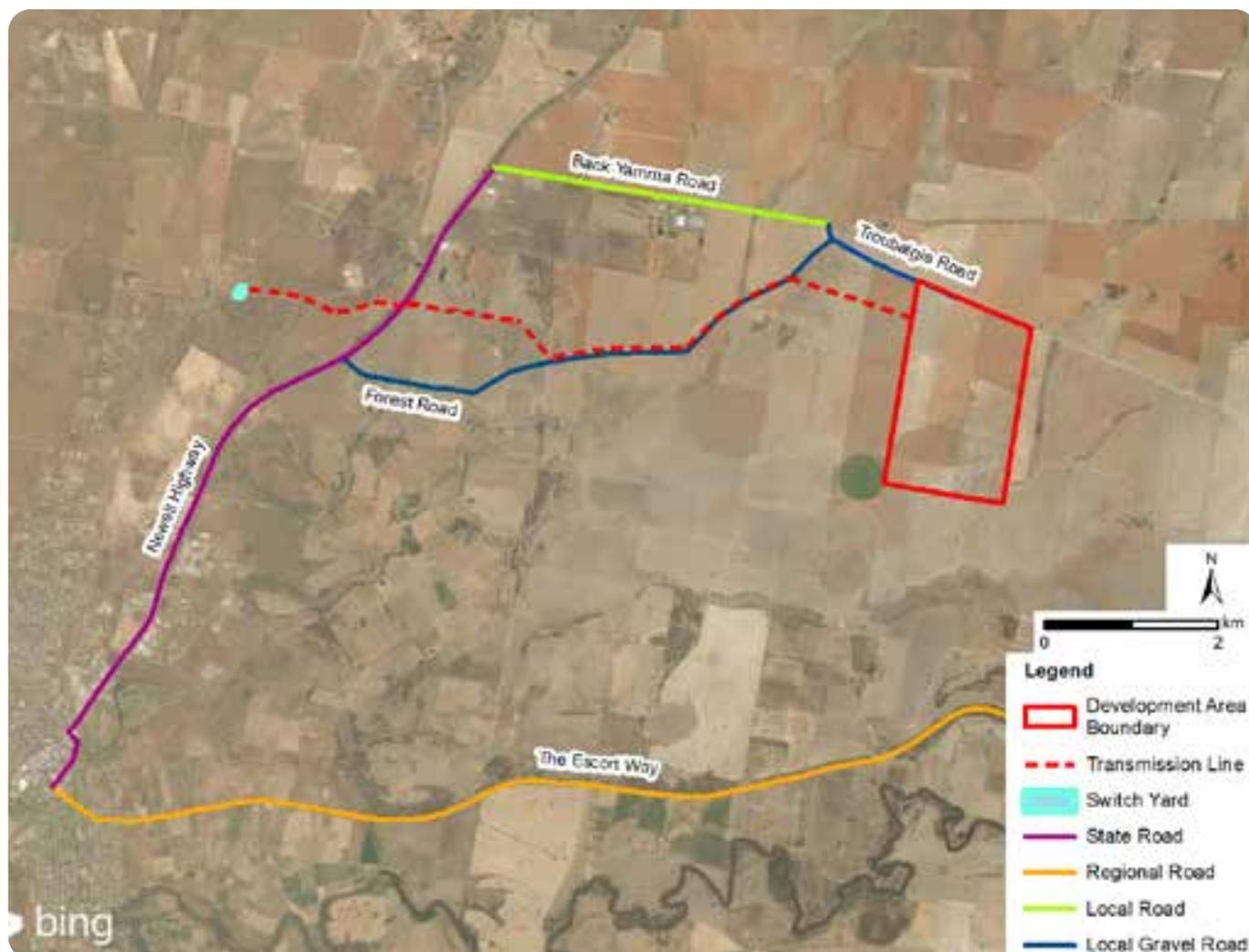
### Traffic and Transport Impact Assessment

An independent assessment of the traffic and transport impacts of the Project is being undertaken by SMEC Australia Pty Ltd. This assessment includes an analysis of local roads and intersections, as well as existing traffic volumes, and estimates of traffic to be generated during the construction and operation of the Project. The assessment will inform the Environmental Impact Statement for the Project.

### Existing Road Network

Existing local roads that are likely to be used by the Project include:

- The Escort Way and Newell Highway (designated heavy vehicle roads)
- Back Yamma Road (local sealed road)
- Troubalgie Road and Forest Road (local unsealed roads)



# Preliminary Findings

The construction phase of the Project (anticipated to be 12-18 months) will generate the largest volume of Project-related traffic and have the greatest impact on the road network. It is anticipated that during the peak construction period (~12 weeks) there could be an additional 5 heavy vehicle movement per hour on local roads and 84 light vehicle movements in the morning and afternoon peak periods (transportation of workers to and from site). Potential impacts and mitigation measures proposed to reduce these impacts are summarised below.

## 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 impacts	Mitigation measures
<b>Road and intersection capacity</b>	Project related traffic movements on the assessed intersections are low and anticipated to have minor overall impacts on intersection performance	None required
<b>Pavement condition</b>	Use of the unsealed section of Troubalgie Road is anticipated to have an impact on pavement condition due to heavy vehicle movements, including over-dimensional vehicles	Assess current pavement conditions of Troubalgie Road and ensure the pavement conditions can accommodate additional construction vehicle movements (including over-dimensional vehicles) in consultation with roads authorities
<b>Average travel speed</b>	Average travel speed on The Escort Way is anticipated to decrease due to slow moving heavy vehicles, including over-dimensional vehicle movements	Prepare and implement a Traffic Management Plan to minimise/avoid construction vehicle movements during peak hours
<b>Property access</b>	Proposed heavy vehicle routes would not result in a reduction in access, however, access may be impacted for existing properties located on Back Yamma Road	If any temporary changes to the property access are required, alternate access arrangements would be determined in consultation with affected property owners and tenants
<b>School bus</b>	Construction traffic may impact on existing school bus routes along The Escort Way	Schedule construction material delivery and associated heavy vehicle movements outside school bus operating hours
<b>Forbes Central Livestock Stock Exchange</b>	Construction traffic could impact on traffic associated with the Livestock Stock Exchange	Schedule construction material delivery and associated heavy vehicle movements to avoid sale day and associated traffic, where possible
<b>Culverts</b>	Over-dimensional vehicles exceed the parameters that roads were originally designed to accommodate, which could damage existing culverts, particularly on local roads leading to the Project site	Assess existing loading capacity of culverts and improve conditions (if required) to accommodate heavy construction vehicle movements, including over-dimensional vehicles
<b>Traffic safety</b>	<p>Construction related traffic is expected to be relatively minor in comparison to local traffic and as such the impact on the overall road use within the town centre of Forbes is expected to be minimal</p> <p>The geometry of Back Yamma Road/Troubalgie Road intersection is not sufficient to safely accommodate two turning truck movements simultaneously</p> <p>Minimal traffic is generated during operation of the Project with minimal/no impact anticipated on the existing road network</p>	<p>Prepare and implement a Traffic Management Plan to minimise/avoid construction vehicle movements during peak hours</p> <p>Upgrade the Back Yamma Road/Troubalgie Road intersection or manage/control turning movements at this intersection</p>

