

# Mulwala Solar Farm proposal

## Response to Submissions

October 2018

Document Information	
File Ref:	181010_ESCO_Response to Submissions_Final.docx
Version:	Version A – Final
Distribution:	CONFIDENTIAL – Uncontrolled when printed

### Revision History

Revision	Description	Author	Review	Approval	Date
1	RTS – FIN	Cedric Berge Martina Gassner	Rhiannon Olle	Allison Hawke	10/10/18

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## CONTENTS

1	Project Information .....	4
1.1	Overview.....	4
2	Proponent's response to Community Submissions .....	4
2.1	Neighbouring property #1 .....	4
2.2	Neighbouring property #2 .....	8
3	Proponent's response to Government Agency Submissions.....	10
3.1	Office of Environment and Heritage.....	10
3.1.1	Aboriginal Cultural Heritage.....	10
3.1.2	Biodiversity .....	10
3.2	NSW Local Land Services .....	11
3.3	Heritage Council of NSW.....	12
3.4	Department of Primary Industries .....	12
3.4.1	Water Supply Sources.....	12
3.4.2	Design and Construction .....	13
3.5	Roads & Maritime Services .....	15
3.6	Department of Planning & Environment – Resource & Geoscience .....	19
3.7	NSW Rural Fire Service.....	19
3.8	Fire & Rescue NSW.....	20
3.9	Federation Council .....	20
3.10	Australian Government – Department of Defence .....	21
3.11	TransGrid.....	21
3.12	NSW Environment Protection Authority .....	22
4	Clarification regarding the proposed reconfiguration of the lots.....	22

# 1 Project Information

## 1.1 Overview

ESCO Pacific is proposing to undertake the development and operation of a utility-scale solar energy facility with a capacity up to 80 megawatts (MW) (the Proposal) on Lot 1 DP DP100773, Lot 1-7 DP134511, Lot 103 DP752290, Lot 114-116 DP752290, Lot 125 DP752290, Lot 132 DP752290, Savernake Road, Mulwala, NSW (the site).

The Project site is located approximately 2 km north of Mulwala within Federation Council. The main land use of the region is rural and consists predominantly of grazing and cropping, with its primary income derived from the agriculture industry.

The Project area encompasses the holdings of an existing farming property, of which the land comprises flat-lying open paddocks.

The Project site is bounded to the south by Tocumwal Road and to the east by Savernake Road.

# 2 Proponent's response to Community Submissions

Two neighbours whose property are located within a 2km radius of the project have made an objection to the project. These are the only public objections made during the exhibition period.

## 2.1 Neighbouring property #1

Comment	Response
<b>Negative Visual Impact</b> to the Mulwala community and adjacent farms. Potentially causing a decline in financial value to neighbouring properties and infrastructure	<p><b>Impact to property values:</b></p> <p>Planning schemes do consider amenity impacts to views from public roads and visual and noise impacts to individual properties. These are discussed individually in other sections of this response.</p> <p>It is a well established planning principle that depreciation of land values as a result of a proposed development is not a relevant ground by which to refuse a proposal. That is, property value is not in itself a planning consideration.</p> <p><b>Visual Impact:</b></p> <p>Clause 34(1) of the <i>State Environmental Planning Policy (Infrastructure) 2007</i> (ISEPP) allows for the development of large-scale solar energy systems with consent even on land prescribed for rural use, although compatibility with local land use objectives needs to be considered (see Section 2.5 Zoning and Permissibility of the EIA).</p> <p>The <i>Environmental Planning and Assessment Act 1979</i> (EP&amp;A Act) is the principle legislation regulating land use in NSW and is administered by the Department of Planning and Environment.</p>

	<p>The Mulwala Solar Farm is considered a State Significant Development (SSD) and therefore required the preparation of an EIS and determination from the Minister for Planning and Environment.</p> <p>Development of the Mulwala Solar farm is being assessed under Part 4 'Development Assessment' of the EP&amp;A Act (see Section 2.5 Zoning and Permissibility of the EIS).</p> <p>Visual impact was assessed in Section 8.3 of the EIS and considered the effects on all neighbouring houses and roads.</p> <p>There is established methodology concerning the management of impacts on sensitive receptors such as houses and the township of Mulwala, as discussed in Section 8.3 of the EIS. This does not extend to productive farming lots.</p> <p>Sensitive receptors range in distance to the solar farm from 250 metres to 1800 metres. Extensive setbacks, dwelling locations and orientation and existing vegetation ensure that there are no nearby dwellings with a prominent view towards the solar farm. However, enhanced landscaping is proposed.</p> <p>ESCO Pacific would welcome a condition of any development consent which requires endorsement of a Landscape Management Plan prior to the commencement of construction. The Plan will be prepared in consultation with relevant local and state agencies (Council, Roads and Maritime Services) and endorsed by the Secretary.</p> <p>The Landscape Management Plan will include:</p> <ul style="list-style-type: none"> <li>• a list of the types of landscaping options (list of species, preferably native species sourced from local nurseries); and</li> <li>• a timetable for establishing and maintaining the landscaping.</li> </ul> <p>ESCO Pacific intends to use a combination of local shrub and canopy tree species to create fast and effective screening.</p>
<p>The proposal will <b>limit residential land available</b> to the surrounding Mulwala township. A section of the land which is currently proposed for the Solar Farm development is zoned residential. This land should be used for the development of the Mulwala township and future population growth.</p> <p>Growth of Mulwala township is limited south due to the Murray River and Lake Mulwala</p>	<p>In a letter to the Department of Planning and Environment dated 1<sup>st</sup> February 2018, Federation Council raised the issue of potential restriction of town growth. As mentioned in section 8.7.3 of the EIS (p. 166), the use of the Project site for a solar farm will have minimal effect on the potential for town growth within Mulwala. The Australian Bureau of Statistics estimated the resident population of Mulwala to be 2,151 in 2017 (idcommunity 2018) which is</p>

<p>waterways. Growth west of the township is limited due to Thales Ammunition site. Please see map showing limited growth corridors for Mulwala township.</p>	<p>minimal population growth compared with 2,129 in 2016 and 2,094 in 2012. This data indicates a lack of extensive town growth which will not be inhibited by the Project.</p> <p>Residential development and population growth are expected to take place along Lake Mulwala, and housing estates, including one to the east of the Project site remains under development. The 40 year life span of the Project has the ability to consider town growth after decommissioning in accordance with the region's needs.</p> <p>In a letter dated 22 June 2018, Council provided in principle support for the proposed lot layout of the Mulwala Solar Farm and did not raise further concerns in relation to the EIS.</p>
<p>The site for the Solar Farm has been chosen due to the close proximity to the Mulwala Substation resulting in a reduction to infrastructure costs. We feel that this is a poor argument given that there is land of further distance (to the Mulwala township) which could be used and create little impact on the future development of Mulwala township. We cannot believe that this development is being proposed in such proximity to a NSW township. It measures 1.9km from the Mulwala Post Office.</p>	<p>Proximity to Mulwala substation is one of several factors considered in the land feasibility assessment of a solar farm development. Factors considered are:</p> <ul style="list-style-type: none"> <li>• close proximity to a substation or distribution/transmission line with sufficient capacity in the grid network;</li> <li>• suitable sized, shaped and oriented land holding;</li> <li>• solar irradiation levels;</li> <li>• land suitability (topography, existing land use, flood risk, zoning etc.);</li> <li>• need to minimise environmental and social impacts (e.g. avoiding sensitive environments or areas of cultural heritage value); and</li> <li>• a willing landowner.</li> </ul> <p>ESCO Pacific conducted an extensive assessment of suitable sites within this section of the grid network, before identifying that the proposed site met the requirements in terms of network capacity, solar resource, planning and environmental constraints.</p>
<p>ESCO Pacific has proposed their preferred first site largely because of the convenience of its proximity to the Mulwala substation. It would be logical to assume that ESCO have unannounced alternate sites for use in the event their preferred primary site is rejected. We understand that the Solar Farm can also be connected to the grid via access to high tension transmission wires. Hence, ESCO could still pursue their Solar Farm project further away (kms) from the township of Mulwala, thereby</p>	<p>A site needs and alternatives assessment were undertaken as part of the EIS (see Section 4) with consideration to factors listed above. The proposed site is ideally suited to a solar project.</p> <p>A project would unlikely be economically viable more than 2 kilometres away from a substation or on a site not traversed by a Transmission Line.</p>

having little or no negative impact on the expansion of the Mulwala township.	
<p>The Peter Thomas Family Trust will continue to farm at "Pantowara" 3604 Spring Drive Mulwala. "Pantowara" is on the eastern boundary to Mulwala township approximately 1000 acres in size. See maps provided. As this land is operated under a company trustee, we as Directors of this entity are concerned about the possibility of Land Rates in the Federation Council rising due to the Mulwala Solar Farm Development. Our concerns are that the Federation Council will raise rates into the future due to NSW State and Federal Governments funding these Solar Farms.</p> <p>This Federal / State Government funding will have an indirect hike in rates to the Federation Council due to lack of future funding of local shires from the NSW State Government. In the long run it will be the Rate Payers of Federation Council who will pay for the NSW State Funding of the Mulwala Solar Farm.</p>	<p>Neither the NSW State Government, Federal Government or Federation Council are funding the proposed Mulwala Solar Farm.</p> <p>ESCO Pacific has the experience and capital to develop the Mulwala solar farm project to be shovel ready, meaning that all contracts and approvals necessary to build the project are in place. ESCO Pacific assesses each project individually on the best route to market. Typically, projects are funded through a mix of private investors and financial institutions.</p>
<p>As Directors of The Peter Thomas Family Trust, we have a concern about where the future growth of the Mulwala township will occur. Our farm has been further improved over the last five years, at quite significant cost, with the building of dedicated irrigation infrastructure. The aim of which was to improve the efficiency of our agricultural irrigation, enabling us to continue as a viable agricultural entity.</p> <p>Our children are the fourth generation to farm this land and are pursuing agriculture studies. They intend moving into the family business and they have no intention of rezoning and developing the land at 3604 Spring Drive, Mulwala into residential allotments.</p> <p>We ask that we are consulted into the future about any proposed rezoning of our land. The Proposed Mulwala Solar Farm Project, at the presently described location, would reduce the amount of available future residential allotments. Such a scenario will result in future pressure on the Federation Council to rezone our productive agricultural land for residential development.</p> <p>The associated impost of such rezoning would likely be the increase in land rates for which we would be liable.</p>	<p>Any potential rezoning by the Department of Planning and Environment and/or Federation Council concerning a specific parcel of land is expected to follow due process with respect to state legislations including community consultation.</p>

We are greatly concerned that our rates will be increased exponentially and our land becomes rezoned without being consulted.	
<p>Finally we raise the comment of the Mulwala Solar Farm Project creating many jobs over the installation of the project.</p> <p>We believe that the jobs created would be minimal compared to the jobs that would be created if the land was a residential development.</p>	<p>The solar farm would have a positive employment impact during construction and is likely to create in the order of 130 jobs. Of these workers, it is expected that the majority would be sourced from the local area. Furthermore, flow on effects to service providers such as fuel supply distributors, vehicle servicing, hotels, motels, B&amp;B's, cafes, pubs, catering and cleaning companies, tradespersons, tool and equipment suppliers and many others are anticipated.</p> <p>There would be up to four operational staff posted at the solar facility to manage the site activities and to support routine plant operations and maintenance.</p> <p>There is no residential development project proposed for the project area.</p>
The Mulwala township will see prospects of growth into the future with the proposed new bridge for the Yarrawonga and Mulwala crossing, The Corowa – Mulwala Trail and the Foreshore Project including an All Abilities Adventure Playground. However this residential growth will be impeded due to limited land.	<p>The project is not expected to impede township growth prospects in the future. The project will bring direct and indirect employment opportunities to the township.</p> <p>The new bridge for the Yarrawonga and Mulwala crossing and other amenity proposals will support urban growth around the desirable foreshores of Lake Mulwala.</p>

## 2.2 Neighbouring property #2

Comment	Response
This is prime agricultural land and this project would not be allowed in many countries including the USA.	The project area is zone R2 Low Density Residential (south east parcel) and RU1 Primary Production (all other parcels) under the Corowa LEP 2012.
The Southeast corner of this major industrial power plant is approximately 75 metres from land zoned residential. The Eastern boundary of this project is 50 metres from land zoned rural residential.	<p>Generally, land used for grazing as opposed to cultivated or irrigated land is not regarded as 'highly productive agricultural land'. Grazed land is more abundant than cultivated land and is therefore the preferred type of agricultural land for renewable developments.</p> <p>The small parcel of land in the southeast part of the project site that is zoned R2 Low Density Residential is currently used for irrigated agriculture.</p> <p>'Agriculture, forestry and fishing' was recorded in the 2016 census to be the largest industry sector of employment in Federation Council,</p>



	<p>making up 19 percent of total employment in the area (ABS 2016). The loss of 215 ha or 0.072 percent of the available agricultural land in the Local Government Area is not considered significant in this context locality.</p> <p>In the search for a solar farm site, a land feasibility assessment considers the following factors:</p> <ul style="list-style-type: none"> <li>• proximity to grid infrastructure (within 2km to the nearest substation);</li> <li>• regulatory settings for renewable energy projects;</li> <li>• solar irradiation levels;</li> <li>• land suitability (topography, existing land use, flood risk, zoning etc.);</li> <li>• need to minimise environmental and social impacts (e.g. avoiding sensitive environments or areas of cultural heritage value).</li> </ul> <p>Given these factors and considering the township of Mulwala lies to the south and east of the site, and the Department of Defence owns vast areas to the south west, the current proposed site is the most suitable land for solar development in the vicinity.</p> <p>Other sites were considered across the broader area, but only the proposed site met all the requirements in terms of network capacity and environmental constraints.</p> <p>The option of sheep grazing between the solar arrays throughout the project's operational period could be explored throughout the project's detailed design phase.</p> <p>After the 40 year operational period the site would be rehabilitated and the site returned to agricultural production.</p>
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### 3 Proponent's response to Government Agency Submissions

#### 3.1 Office of Environment and Heritage

OEH considers that the EIS does meet the SEARs for biodiversity, Aboriginal cultural heritage (ACH) and flooding assessment.

##### 3.1.1 Aboriginal Cultural Heritage

Comment	Response
<b>Aboriginal Cultural Heritage – Unanticipated Finds Protocol (Pre-Construction)</b>  The Applicant must follow the prepare Unanticipated Finds Protocol for the development as detailed in the ACHAR.	ESCO Pacific accept the inclusion of this as a Permit Condition if the project is approved.
The unanticipated finds protocol detailed in the ACHAR (Appendix A) be included as a condition of project approval.	ESCO Pacific accept the inclusion of this as a Permit Condition if the project is approved.

##### 3.1.2 Biodiversity

Comment	Response
<b>Biodiversity offsets should be in place before the commencement of clearing for construction (Pre-Construction)</b>  Prior to construction commencing, the Applicant must retire biodiversity credits of a number and class specified in the table below to the satisfaction of OEH.	ESCO Pacific accept the inclusion of this as a Permit Condition if the project is approved
<b>Biodiversity Management Plan (Pre-Construction)</b>  Prior to the commencement of construction, the Applicant must prepare a Biodiversity Management Plan for the development in consultation with OEH	ESCO Pacific accept the inclusion of this as a Permit Condition if the project is approved
As a condition of approval, the process for retiring biodiversity credits of a number and class must be provided as specified in section 11, Table 13 of Appendix I of the BDAR.	ESCO Pacific accept the inclusion of this as a Permit Condition if the project is approved.
Prior to the commencement of construction, the Applicant must prepare a Biodiversity Management Plan for the development in	ESCO Pacific accept the inclusion of this as a Permit Condition if the project is approved.

<p>consultation with OEH, and to the satisfaction of the Secretary. This plan must include a description of the measures that would be implemented for:</p> <ul style="list-style-type: none"> <li>- minimising clearing and avoiding unnecessary disturbance of vegetation that is associated with the construction and operation of the development;</li> <li>- minimising the impacts to fauna on site (including fauna interaction with perimeter fencing) and implementing fauna management protocols;</li> <li>- avoiding the removal of hollow-bearing trees between 1 September and 1 December to avoid the main breeding period for hollow-dependent fauna;</li> <li>- rehabilitating and revegetating temporary disturbance areas;</li> <li>- protecting vegetation and fauna habitat outside the approved disturbance areas;</li> <li>- maximising the salvage of vegetative and soil resources within the approved disturbance area for beneficial reuse in the enhancement or the rehabilitation of the site;</li> <li>- controlling weeds and feral pests; and</li> <li>- include a protocol for removing hollow-bearing trees;</li> <li>- include details of who would be responsible for monitoring, reviewing and implementing</li> <li>- the plan, and timeframes for completion of actions.</li> </ul>	
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### 3.2 NSW Local Land Services

Comment	Response
<p>The Mulwala Solar Farm proposal, including vegetation clearing, is being assessed under Part 4 of the EP&amp;A Act. The potential impacts on native vegetation are discussed in sections 8-10 of the report.</p> <p>Avoidance and mitigation measures have been incorporated into the design in the first instance, with mitigation measures assessed for the construction and operational phases of the project.</p>	<p>ESCO Pacific acknowledges NSW Local Land Services Response</p>

<p>Accordingly as the EIS and BDAR give consideration for such clearing, LLS does not provide any additional consent as an agency.</p> <p>In summary, the EIS and Appendices address matters with respect to vegetation clearing, offsetting and biodiversity requirements and authorises activities via the Planning legislation pathway.</p> <p>Local Land Services has no further comment in respect to matters under Part 5 of the Local Land Services Act 2013.</p>	
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### 3.3 Heritage Council of NSW

Comment	Response
<p>There are no State Heritage Register items within the subject site or in the vicinity. However, it is noted that Mulwala Station Homestead, which is a locally significant item listed in the Corowa Local Environmental Plan 2012, is in the immediate vicinity. Whilst it is thought that visual impacts to the Mulwala Station Homestead are likely to be low as vegetation around the homestead provides a visual barrier, the input of the Federation Council should be sought in relation to impacts on this locally listed heritage item.</p>	<p>ESCO Pacific acknowledges Heritage Council of NSW Response</p>

### 3.4 Department of Primary Industries

#### 3.4.1 Water Supply Sources

Comment	Response
<p>Confirm that a secure water supply is available for the project, including confirmation of which bores and dams are proposed to be used to supply water for the project and confirmation that they are appropriately licensed for the purpose.</p>	<p>Section 8.6 of the EIS considers the impacts of the project on raw water supplies. Water for construction and decommissioning (mainly for dust suppression of earthworks and access roads) would be securely sourced from a range of options, such as:</p> <ul style="list-style-type: none"> <li>• Water tankers to be brought on site;</li> <li>• Temporary dams on construction site; and</li> <li>• Existing groundwater bore</li> </ul> <p>If the groundwater bore option is implemented, the Proponent will seek to obtain all relevant</p>
<p>Where water supply works are to be accessed from landholders and/or local water authorities it is recommended confirmation be obtained of the ability to access these supplies prior to project determination.</p>	

	<p>permits and comply with all relevant requirements.</p> <p>Approximately 10,000,000 litres will be used over the construction period. This volume is well within the supply capacity and would have negligible impact to nearby ground water users.</p> <p>A static water supply (20,000 L) for fire protection would be established on site during construction with appropriate fittings for access by local brigade appliances. This facility would remain throughout the duration of the Project. Water supply for fire protection would also be sourced from the existing on-site bore similar to that for dust suppression on an as-required basis (expected to be extremely infrequent).</p> <p>Water supply during construction and decommissioning would not be sourced from surface water meaning there would be no anticipated impact to adjacent surface water users.</p> <p>Potable water supply for staff amenities would be imported to site in containers as required under a commercial supply arrangement.</p>
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### 3.4.2 Design and Construction

Comment	Response
It is recommended that the proponent clarifies how "Critical infrastructure (such as substation and ancillary infrastructure)" will be installed "300 millimetres minimum above natural surfaces". This is to confirm the disturbance required and the potential to influence flooding.	<p>Despite no flooding or stormwater risk expected to affect the site, nuisance inundation has the potential to impact development infrastructure. This risk is mitigated by installation of critical infrastructure 300 millimetres minimum above natural surface levels.</p> <p>Power Conversion Units will be installed on piles or ground screws with a clearance to allow cable entry.</p> <p>Equipment such as substation, Office and Maintenance building, warehouse will be installed on a specific pad to be engineered in a way to minimise the impact of the natural flow of stormwater.</p> <p>If hydrology studies to be undertaken at design stage show area affected by 1% AEP flood, all critical infrastructure will be raised above the flood level by at least 300mm.</p> <p>The EIS also mentions that the proposed works will not significantly alter the existing pattern and direction of surface water movement across the property, with no changes to the natural ground surface due to the foundations</p>

	for the solar panels. The existing surface water characteristics will remain unchanged and will continue to discharge to the natural depressions on the site, which have been excluded and buffered from the development footprint.
Soil Capability Class should be confirmed across the site as the areas classified as Class 5 (Severe Limitations) may be Class 3 based on the current and historical use for irrigated agriculture. If the land is classified as Class 3 and suitable for irrigated agriculture, additional assessment is required to the impacts of the proposal on agriculture, including an assessment of alternative sites for the project to reduce or avoid the sterilisation of irrigated agricultural land resources.	<p><b>Soil Capability Class Definitions</b></p> <p><i>Class 3:</i> Suited to grazing, including the use of improved pastures. Cultivation is limited to cash or forage crops in rotation with pastures.</p> <p><i>Class 5:</i> Non-arable land suitable for grazing but not cultivation. Maintain or improve perennial pastures and preserve ground cover.</p> <p><b>1. Soil Capability Class within the project site</b></p> <p>Figure 43 of the EIS shows the proportion of Class 3 land that is currently used for irrigated agriculture (cropping) within the development footprint. Currently, it is understood that most of the southern portion of site is shown as Class 5, whereas most of the northern part is shown as Class 3.</p> <p>As shown on aerial images in the last 10 years (Google Earth) and as confirmed by the Landowner, only the southeast corner of the site has been irrigated and cropped in rotation with pasture. All other blocks of land within the proposed site have been used for grazing only (no forage crops in rotation with pasture). Therefore, the southeast corner may be Class 3 based on the current and historical use for irrigated agriculture.</p> <p><b>2. Potential impact of the proposal on agriculture</b></p> <p>It is not expected that conversion to a solar farm land-use would alter the existing surface water or groundwater processes. The existing bore will not be removed nor altered during construction and operation of the Solar Farm.</p> <p>After the 40 year operational period the site would be rehabilitated and the site returned to agricultural production.</p> <p><b>3. Assessment of alternative sites (Refer to Section 4 EIS)</b></p> <p>In the search for a solar farm site, a land feasibility assessment considers the following factors:</p> <ul style="list-style-type: none"> <li>• proximity to grid infrastructure (within 2km to the nearest substation);</li> </ul>

	<ul style="list-style-type: none"> <li>• regulatory settings for renewable energy projects;</li> <li>• solar irradiation levels;</li> <li>• land suitability (topography, existing land use, flood risk, zoning etc.); and</li> <li>• need to minimise environmental and social impacts (e.g. avoiding sensitive environments or areas of cultural heritage value).</li> </ul> <p>Given these factors and considering the township of Mulwala lies to the south and east of the site, and the Department of Defence owns vast areas to the south west, the current proposed site is the most suitable land for solar development in the vicinity. There is no other suitable land for a solar farm within Class 5.</p>
Prepare an Erosion and Sediment Control Plan (as part of a Construction Environmental Management Plan for the project).	ESCO Pacific accept the inclusion of this as a Permit Condition if the project is approved.
Where excavation will, or is expected to exceed the specified 1 metre depth below the ground surface further assessment of groundwater impacts and take requirements is undertaken.	ESCO Pacific accept the inclusion of this as a Permit Condition if the project is approved.
Fencing associated with the proposed development be designed to reduce impacts on nuisance flooding and mitigation measures designed and implemented for on or off site impacts.	ESCO Pacific accept the inclusion of this as a Permit Condition if the project is approved.

### 3.5 Roads & Maritime Services

Comment (paraphrased)	Response
The submitted documentation indicates that access to the development site is proposed from Lambruck Lane and through the intersection of the Tocumwal Road and Savernake Road. However an access is also proposed from Tocumwal Road for the proposed Switching Yard. As the proposed development site will include internal access roadways and the terrain does not appear to represent any restrictions to access from Lambruck Lane to the switching yard it is appropriate to require that all access to the development site be via this access and deny access to the site from Tocumwal Road. This is consistent with the provisions of SEPP (Infrastructure) clause 101. The standard of the access to the site from	<p>The Applicant would like to request a specific site access from Tocumwal Road for the sole purpose of constructing the substation. Essential Energy and their contractors would use this access during construction as well as during operation for non-standard maintenance activities (requiring heavy and/or oversized vehicles). Impacts on Tocumwal and Savernake Roads have been addressed in Section 8.2 of the EIS.</p> <p>All other construction and operation traffic would access the site via Lambruck Lane, and the standard of the access to the site would be consistent with Council's requirements.</p> <p>It is accepted that once operational, the maintenance of the solar farm would be</p>

<p>Lambruck Lane should be consistent with Council's requirements.</p>	<p>undertaken using the internal access roadways and site entry be restricted to Lambruck Lane.</p>
<p>Prior to the commencement of construction activities a Traffic Management Plan shall be prepared in consultation with the relevant road authorities (Council and Roads and Maritime Services) to outline measures to manage traffic related issues associated with the development, particularly during the construction and decommission processes. The appointed transport contractor shall be involved in the preparation of this plan. The plan shall address all light and heavy traffic generation to the development site and detail the potential impacts associated with the development, the mitigation measures to be implemented, and the procedures to monitor and ensure compliance. This plan shall address, but not necessarily be limited to the following;</p> <ul style="list-style-type: none"> <li>- finalise details of haulage, including transport routes, volumes, vehicle type and length, timing, and frequency,</li> <li>- finalise details of any required road-specific mitigation measures.</li> <li>- require that all vehicular access to the site be via the approved access route.</li> <li>- details of measures to be employed to ensure safety of road users and minimise potential conflict with project generated traffic,</li> <li>- proposed hours for construction activities, as night time construction presents additional traffic related issues to be considered.</li> <li>- provide measures to suppress dust generation from the development site and the transportation route</li> <li>- the management and coordination of the movement of vehicles for construction and worker related access to the site and to limit disruption to other motorists, emergency vehicles, school bus timetables and school zone operating times.</li> <li>- strategies and measures employed to manage the risks of driver fatigue and driver behaviour for construction staff.</li> <li>- measures to address adverse climatic conditions that may affect road safety for vehicles used during construction, operation and decommissioning of the facility (e.g. fog, dust, wet weather).</li> </ul>	<p>ESCO Pacific accept the inclusion of these Conditions if the project is approved.</p>



<ul style="list-style-type: none"> <li>- procedures for informing the public where any road access will be restricted as a result of the project,</li> <li>- any proposed precautionary measures such as signage to warn road users such as motorists about the construction activities for the project,</li> <li>- a Driver Code of Conduct to address such items as; appropriate driver behaviour including adherence to all traffic regulations and speed limits, safe overtaking and maintaining appropriate distances between vehicles, etc and appropriate penalties for infringements of the Code,</li> <li>- details of procedures for receiving and addressing complaints from the community concerning traffic issues associated with truck movements to and from the site.</li> </ul>	
<p>Prior to the commencement of construction on-site, the Proponent must undertake all works to upgrade any road, its associated road reserve and any public infrastructure in that road reserve, to a standard suitable for use by heavy vehicles to meet any reasonable requirements that may be specified by the relevant roads authority.</p>	<p>ESCO Pacific accept the inclusion of these Conditions if the project is approved.</p>
<p>No external lighting of any infrastructure associated with the project is permitted at night that may cause distraction to road users other than low intensity security lighting.</p>	<p>ESCO Pacific accept the inclusion of these Conditions if the project is approved.</p>
<p>A landscaped buffer (at least 5 metres in width planted with a variety of species endemic to the area and growing to a mature height ranging from 2 metres to at least 5 metres) shall be established and maintained within the subject property along the frontages of the site to the Tukumwal Road and Savernake Road to a standard to minimise distraction of the travelling public.</p>	<p>Prior to the commencement of construction, a Landscape Management Plan is expected to be required as part of the Development Consent. The Plan will be prepared in consultation with relevant local and state agencies (Council, Roads and Maritime Services) and endorsed by the Secretary.</p> <p>The Landscape Management Plan will include:</p> <ul style="list-style-type: none"> <li>• a list of the types of landscaping options (list of species, preferably native species sourced from local nurseries); and</li> <li>• A timetable for establishing and maintaining the landscaping.</li> </ul> <p>ESCO Pacific intends to use a combination of local shrub and canopy tree species to create the fastest effective screen. The indication is that</p>

	<p>seedlings can supersede advanced growth plants within a couple of years.</p> <p>The Visual Impact Assessment report attached to the EIS has recommended that a 3 metre wide landscape buffer was sufficient to mitigate effectively all impacts from neighbouring properties.</p> <p>There is established methodology concerning the management of impacts on sensitive receptors such as houses and the township of Mulwala, as discussed in Section 8.3 of the EIS. This does not extend to productive farming lots.</p> <p>ESCO Pacific propose to enhance the existing landscaping along Tocumwal and Saverlake Roads and be responsible for the establishment of new plants, weed management and watering of the landscape buffer.</p>
<p>Glint and glare from the solar panels shall not cause a nuisance, disturbance or hazard to the travelling public on the public road network. In the event of glint or glare from the solar plant being evident from a public road, the proponent shall immediately deny rotation of the panels and implement glare mitigation measures such as construction of a barrier (e.g. fence) or other approved device to remove any nuisance, distraction and/or hazard caused as a result of glare from the solar panels.</p>	<p>A reflectivity assessment has been prepared as part of the EIS (Visual Impact Assessment report). The potential for glare associated with non-concentrating photovoltaic systems which do not involve mirrors or lenses is relatively limited. Photovoltaic solar panels are designed to absorb the highest amount of solar energy possible to generate the maximum amount of electricity. This results in negligible glare, reflecting as little as 2% of the sunlight received (Spaven Consulting 2011).</p> <p>Considering that the solar panels would remain at a static 45-degree angle in the mornings and afternoons, the resulting specular glare is likely to have a negligible influence on sensitive receivers, and any glare would reflect in an opposing direction away from the receptor. Therefore, no mitigation measures are proposed to mitigate glare and reflectivity.</p> <p>The Applicant does not expect glint and glare to cause a nuisance. Should they cause a nuisance, the Applicant would implement adequate mitigation measures.</p>
<p>Any works within the road reserve of Tocumwal Road requires approval under Section 138 of the Roads Act, 1993 from the road authority (Council) and concurrence from Roads and Maritime Services prior to commencement of any such works. The developer is responsible for all public utility adjustment/relocation works, necessitated by the development and as required by the various public utility authorities and/or their agents.</p>	<p>ESCO Pacific accept the inclusion of these Conditions if the project is approved.</p>

All works associated with the project shall be at no cost to the Roads and Maritime Services.	ESCO Pacific accept the inclusion of these Conditions if the project is approved.
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### 3.6 Department of Planning & Environment – Resource & Geoscience

Comment	Response
The EIS has addressed all GSNSW requirements regarding the assessment of land use compatibility with operating mines, extractive industries (quarries), mineral, coal or petroleum resources and exploration activities. The Division notes that according to departmental databases, there are no current mineral, coal or petroleum titles or operating mines over the site or adjacent lands and has no resource sterilisation concerns regarding the Project at this stage. It should be noted that reference to the sites identified in Table 25 relate to quarry operations that have ceased production, rather than exploration titles under the Mining Act 1992.	ESCO Pacific acknowledges DPE – Resource & Geoscience Response
GSNSW note Mulwala Solar Farm propose to acquit the liability of 30.75 credits by making a lump sum payment of equivalent value to the Biodiversity Conservation Trust Fund or via purchasing credits from the public register (subject to the determination conditions of the EIS).	ESCO Pacific acknowledges DPE – Resource & Geoscience Response

### 3.7 NSW Rural Fire Service

Comment	Response
<p>A Fire Management Plan (FMP) shall be prepared for the proposed facility in consultation with the local NSW RFS District Office. The FMP shall include:</p> <ul style="list-style-type: none"> <li>- 24 hour emergency contact details including alternative telephone contact;</li> <li>- site infrastructure plan;</li> <li>- fire fighting water supply plan;</li> <li>- site access and internal road plan;</li> <li>- construction and asset protection zones and their continued maintenance;</li> <li>- location of hazards (physical, chemical and electrical) that will impact on the fire fighting operations and procedures to manage identified hazards during the fire fighting operations; and</li> </ul>	ESCO Pacific accept the inclusion of these Conditions if the project is approved.

- such additional matters as required by the NSW RFS District Office.	
The entire solar array development footprint shall be managed as an asset protection zone as outlined within section 4.1.3 of Planning for Bush Fire Protection, 2006 and the NSW RFS document Standards for asset protection zones.	ESCO Pacific accept the inclusion of these Conditions if the project is approved.
A 10 metre defendable space, managed as an asset protection zone, shall be around the perimeter of the solar array development site and any proposed building to allow for emergency service personnel to undertake property protection activities.	ESCO Pacific accept the inclusion of these Conditions if the project is approved.
A minimum 20,000 litre water supply (tank) fitted with a 65mm Storz fitting shall be located adjoining the internal property access road within the required asset protection zone.	ESCO Pacific accept the inclusion of these Conditions if the project is approved.

### 3.8 Fire & Rescue NSW

Comment	Response
Fire & Rescue NSW (FRNSW) have reviewed elements of the proponent's EIS that are of relevance to us. We do not have any new comments in relation to the EIS. However, we reiterate our previous comments submitted to the Department on the 17 January 2018 in relation to the draft Environmental Assessment Requirements	ESCO Pacific accept the inclusion of an Emergency Response Plan condition if the project is approved

### 3.9 Federation Council

Comment	Response
Federation Council is satisfied that the Environmental Impact Statement prepared for the proposed Solar Farm in Mulwala has addressed all items raised by Council in the Secretary's Environmental Assessment Requirements (SEARs).  Federation Council has no further comment in regards to this development.	ESCO Pacific acknowledges Federation Council Response

### 3.10 Australian Government – Department of Defence

Comment	Response
<p>The Commonwealth of Australia, represented by the Department of Defence own the Mulwala Explosive Factory (MEF) that is operated under contract by Thales Australia Limited, trading as Australian Munitions (Thales).</p> <p>The siting of facilities within the MEF for manufacturing, processing, storing and handling explosives has been conducted based on risk assessments considering both internal and external exposed sites. As a Major Hazard Facility under the WHS legislation, the emergency response capabilities of the factory have been developed by Thales on the basis that the area of the proposed development has no significant vulnerable infrastructure. Therefore this proposal has the potential to impact on the capability and operations of the Mulwala factory and hence on Defence capability.</p> <p>The extent of any impact is unable to be determined from the information provided in the development proposal and Defence seeks further consultation on the exact siting of the Solar Farm facilities before providing final advice of the impact and any risk associated with the development proposal.</p> <p>Based on an initial review of the Development proposal, notably the Commonwealth Land Environmental Impact Statement, there is insufficient detail to assure that the developer of the proposal has appreciated the potential to the Solar Farm should an explosives event occur at the MEF.</p> <p>Defence recommends further consultation to ensure that the potential impact can be understood and appropriately mitigated within the detailed development of the Solar Farm.</p>	<p>ESCO Pacific contacted Australian Munitions and the Department of Defence on 24 August 2018 to introduce the proposed Mulwala Solar Farm. Initial discussions centred around the 4.5 km distance between the Australian Munitions Mulwala Explosives Factory (MEF) and the Mulwala Solar Farm site and the standard Defence safeguarding zone.</p> <p>The purpose of the EIS is to assess, and propose mitigation measures for, the environmental and social implications of proceeding with the proposed development. It is ESCO Pacific's view that while the Project is located in close proximity to Commonwealth land areas, due to the nature of the Project and the mitigation measures proposed as part of the environment impact assessment, it is unlikely that the Project would significantly impact Commonwealth land and the specific operations at Australian Munitions (refer to Section 8.7.3.6 of the EIS).</p> <p>The Department of Defence continues to undertake detailed studies into the effects of blasting within its safeguarding zone around the MEF. As agreed with both the Department of Planning and Environment and the Department of Defence (4 October 2018), ESCO Pacific will continue to liaise with Australian Munitions and the Department of Defence regarding the future safeguarding zone around the MEF.</p>

### 3.11 TransGrid

Comment	Response
<p>TransGrid can confirm we have no objections to the DA as it does not affect TransGrid's infrastructure.</p>	<p>ESCO Pacific acknowledges TransGrid Response</p>

### 3.12 NSW Environment Protection Authority

Comment	Response
<p>As per our advice of 22 January 2018 to the Department of Planning and Environment the EPA has responsibilities for pollution control and environmental management for scheduled activities under the <i>Protection of the Environment Operations Act 1997</i>. Based on the information provided the proposed activity is not a scheduled activity under the <i>Protection of the Environment Operations Act 1997</i> and the proposed solar farm does not require an Environment Protection Licence. Under the <i>Protection of the Environment Operations Act 1997</i> Federation Council will be the Appropriate Regulatory Authority for pollution control and environmental management issues for this proposal should it be approved.</p> <p>On this basis the EPA has no further comments to make in relation to this proposal, and required no further consultation in relation to this application.</p>	<p>ESCO Pacific acknowledges NSW Environment Protection Authority Response</p>

## 4 Clarification regarding the proposed reconfiguration of the lots

As outlined in section 5.3.1, the Mulwala Solar Farm is located within zone AE and Y for subdivision under the Federation Council LEP and any lot resulting from a subdivision is not to be less than respectively 250 hectares and 1 hectare. As per Section 7A of the Conveyancing Act 1919, the project is expected to require reconfiguration of the lots since the proposed lease with the landholder will exceed 5 years.

The reconfiguration of the lots based on the maximum envelope for the solar farm proposed by ESCO Pacific is shown in **Figure 12** (see below) of the EIS. Grid capacity constraints and planning constraints may result in a reduction to the area of land leased for the solar farm.

ESCO Pacific seeks the Secretary's consent for subdivisions required to facilitate the development of the solar farm.

It is recognised that a subdivision certificate must still be obtained from the certifying authority (anticipated to be Federation Council).

The proposed lot reconfiguration would include lots that are less than 250 ha in zone AE. Specific details are provided below:

- The northern area would create a new lot associated with the solar farm infrastructure, which could encompass up to 133 Ha, affecting part of Lots 5 and 6 in Deposited Plan 134511 (purple in **Figure 12** of the EIS).
- The southern area (up to 82 hectares, encompassing the solar farm boundaries) would create a new lot associated with the solar farm infrastructure, which could encompass up to 82 Ha affecting Lots 1, 3 & 4 in DP134511, Lots 103, 114 & 115 in DP 752290 and part of Lot 116 in DP 752290, and part of Lots 2 & 7 in DP 134511 (dark purple in **Figure 12** of the EIS).
- Pending final technical scope and design with the Transmission Network System Provider (TNSP) a new lot could be created within the solar farm boundaries for the Switchyard

(Essential Energy) with an area of approximately 2500 sq. metres (pink in **Figure 12** of the EIS).

Should the project not take a lease over the entire area of any individual lot:

- A new lot would be created as a residual land from Lots 2 & 7 in DP 134511 and 116 in DP 755590 (brown in **Figure 12** of the EIS).
- A new lot would be created as a residual land from Lots 5 & 6 in DP 134511 (orange in **Figure 12** of the EIS).

Lot 1 in DP 100773 and Lots 125 & 132 in DP 752290 remain unchanged (blue in **Figure 12**). The proposed boundaries and areas shown on **Figure 11** (see below) and **Figure 12** of the EIS are:

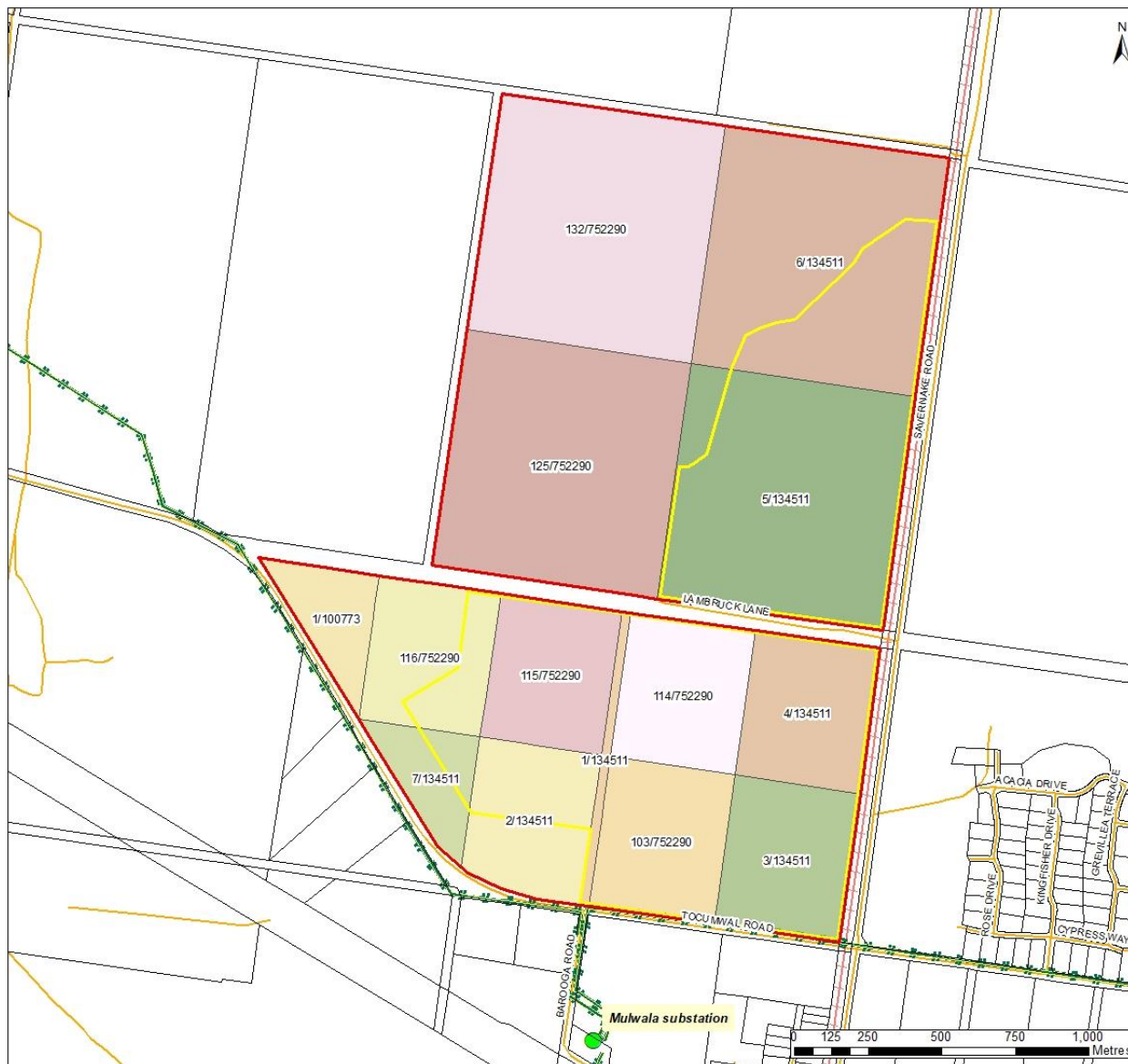
- Based on maximum footprint which could be reduced based on grid and planning constraints,
- Indicative at this stage and will need to be surveyed before execution of options to lease.
- The proposed switchyard lot is indicative and subject to feedback from the TNSP.

All lots will be able to be accessed from the roads surrounding the development site (shown in red on both figures), except possibly the lot for the switchyard for which a shared access with Essential Energy may have to be created.

Land ownership would remain unchanged for all lots.

ESCO Pacific is in discussion with Federation Council to seek approval for the required subdivision certificate of the existing lots. Federation Council stated the proposed reconfiguration of the lots did not comply with the Local Environmental Plan 2012. However, council is supportive of the development and is therefore willing to provide in-principle agreement for the reconfiguration to proceed. Council wishes to ensure that no dwelling entitlement shall be attached to any newly created lots that are under the minimum lot size.





PROJECT <b>Mulwala Solar Farm</b>		
MAP TITLE <b>Existing Lot Configuration</b>		
Title Info Lot 1 in DP100773 - Lots 1-7 in DP134511 Lot 103, 114-116, 125, 132 in DP 752290		
<b>LEGEND</b> <b>Mulwala Solar Farm</b> <div> <div></div> Project Boundary (Combined Lot Boundary - 420 hectares)  <div></div> Solar Farm maximum extent (218 hectares) </div> <b>Existing Cadastral Boundaries (same Landholder)</b> <div> <div></div> Lot 1 in Plan 100773  <div></div> Lot 103 in Plan 752290  <div></div> Lot 114 in Plan 752290  <div></div> Lot 115 in Plan 752290  <div></div> Lot 116 in Plan 752290  <div></div> Lot 125 in Plan 752290  <div></div> Lot 132 in Plan 752290  <div></div> Lot 1 in Plan 134511  <div></div> Lot 2 in Plan 134511  <div></div> Lot 3 in Plan 134511  <div></div> Lot 4 in Plan 134511  <div></div> Lot 5 in Plan 134511  <div></div> Lot 6 in Plan 134511  <div></div> Lot 7 in Plan 134511 </div> <b>Others</b> <div> <div></div> Cadastral Boundaries  <div></div> Essential Energy Substation  <div></div> Essential Energy Transmission lines  <div></div> Roads / Tracks  <div></div> Railway </div>		
<div> </div> <p><small>DISCLAIMER: This map was prepared for the purpose and to the satisfaction of ESCO Pacific Pty Ltd and the landholder and is not to be used for any other purpose. The map is not guaranteed to be true in content or accuracy. The location of features should not be relied on without field verification. Copyright: ESCO Pacific</small></p>		
DATE 25/05/2018	SCALE 1:12,500	Page Size A3
STATUS DRAFT	PRODUCED C. Berge	APPROVED A. Hawke
MAP No. MUL_LAY_008_01_Subdivision_Existing	REV 01	



