

JRPP No:	2017NTH021
DA Number:	DA-137-2017
Local Government Area:	Armidale Regional Council
Proposed Development:	Solar Farm and Associated Infrastructure
Street Address:	303 Cluny Road, Armidale (Lot 478 in DP755808, Lot 794 in DP755808 and Lot 796 in DP755808)
Applicant/Owner:	University of New England
Number of Submissions:	Two
Recommendation:	Approval with Conditions
Report by:	Linda Graham
Report date:	24 February 2018

Further Application Details:

DA Lodgement Date:	12 September 2017
Additional Information received? / date?	Additional information was requested and received on the 21 December 2017.
Estimated Construction Value of Development:	\$14,200,000.00 (14.2 million dollars)
Capital Investment Value:	\$14,200,000.00 (14.2 million dollars)

Glossary of terms used in this report:

BCA – Building Code of Australia

DA – Development Application

DCP - Armidale Dumaresq Development Control Plan 2012

LEP – Armidale Dumaresq Local Environmental Plan 2012

SEPP – State Environmental Planning Policy

UNE – University of New England

LGA – Local Government Area

JRPP – Joint Regional Planning Panel

Assessment Report and Recommendations

DA-137-2017 / JRPP Ref. 2017NTH021

Executive Summary

Consideration by Joint Regional Planning Panel

The JRPP is the determining authority for this DA pursuant to Schedule 4A of the Environmental Planning and Assessment Act 1979 (the Act), as the proposed development has a capital investment value of more than \$5 Million. The capital investment value of the project, as estimated by the applicant, is \$14.2 Million.

Proposal

The proposed development concerns the establishment of a solar farm at UNE. The purpose of the solar farm is to partially satisfy power demands associated with the running of the Armidale UNE campus located at 60 Madgwick Drive, Armidale. The proposed solar farm will occupy approximately 11 hectares of land and will be conducted in two stages.

Permissibility

The proposed solar farm is properly categorised as “electricity generating works” under the LEP. “Electricity generating works” is defined as follows:

“...means a building or place used for the purpose of making or generating electricity”.

The subject site is located within the RU4 – Small Lot Primary Production Zone (RU4 Zone). Under the RU4 Zone, within the LEP, “electricity generating works” are technically prohibited. The permissibility arises from the SEPP Infrastructure 2007, Division 4 (Electricity generating works or solar energy systems), Clause 34 (Development permitted with consent) which states the following:

Development for the purpose of electricity generating works may be carried out by any person with consent on any land in a prescribed rural, industrial or special use zone.

The RU4 Zone is considered to be a prescribed rural zone and one of the suite of rural zones found within the Standard Instrument.

Ancillary work comprising cabling connecting the solar farm into the university, will be undertaken on land owned by UNE. Cabling will pass not only through the RU4 Zone but also the R5 – Large Lot Residential Zone (R5 Zone) and the SP2 – Special Purpose Zone (Educational Establishment) (SP2 Zone).

The cabling associated with the solar farm is not considered to be “electricity generating works” but rather defined as “electricity transmission or distribution network”, defined within the SEPP Infrastructure 2007 as follows:

“...includes the following components:

- (a) above or below ground electricity transmission or distribution lines (including related bridges, cables, conductors, conduits, poles, towers, trenches, tunnels, access structures, access tracks and ventilation structures) and telecommunication facilities that are related to the functioning of the network,*
- (b) above or below ground electricity switching stations or electricity substations, feeder pillars or transformer housing, substation yards or substation buildings.*

“Electricity generating works” are clearly distinguished from “electricity transmission” and are considered to be a form of work “permitted without consent”. The SEPP does not prohibit the installation of the cabling though land in the R5 Zone and the SP2 Zone.

Key Issues

The key issue associated with the application is managing the visual impact of the proposed solar farm.

As a result of this assessment, the proposed development is recommended for conditional consent. Appendix 1 to this report contains the proposed conditions of consent.

Recommendation:

- (a) That having regard to the assessment of the application, DA-137-2017 (JRPP Ref. 2017NTH021) be granted conditional consent in the terms set out in Appendix 1 to this report.
- (b) That those persons that made submissions in relation to the application be notified of the determination in writing.

Subject site and locality

The subject site is known as Lot 478 in DP755808, Lot 794 in DP755808 and Lot 796 in DP755808. The land presents as open pasture with tree coverage towards the western boundary of Lot 794 in DP755808. Lot 794 in DP755808 also features scattered vegetation. This vegetation consists of koala feed trees, resulting in the subject site being identified as Potential Koala Habitat. The land slopes from the south boundary towards a waterway which travels through Lot 478 in DP755808 and Lot 796 in DP755808. The fork of the waterway is identified as being Strahler Order 1.



Figure 1: Aerial photograph showing the subject site. The light blue line indicates the location of existing waterways. The yellow dashed line roughly indicates the boundaries of the proposed solar farm.

The surrounding area can be characterised by:

- Rural-residential development;
- Extensive agricultural activity; and
- The built environment of UNE.

This pattern largely reflects surrounding land zones, including the RU4 Zone, the RU1 – Primary Production Zone, the R5 Zone, the E3 – Environmental Management Zone and the SP2 Zone.

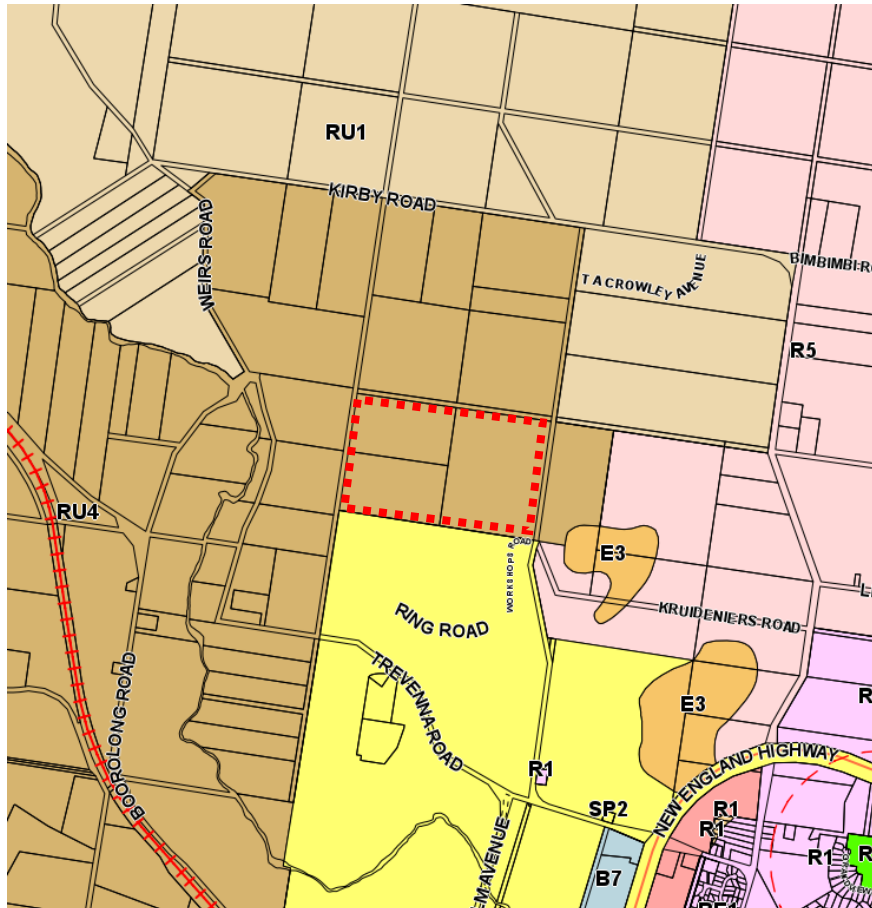


Figure 2: Zoning map showing land surrounding the subject site (outlined with a red dotted line).

Zone	
B2	Local Centre
B3	Commercial Core
B4	Mixed Use
B5	Business Development
B7	Business Park
E1	National Parks and Nature Reserves
E3	Environmental Management
E4	Environmental Living
IN1	General Industrial
IN2	Light Industrial
R1	General Residential
R2	Low Density Residential
R5	Large Lot Residential
RE1	Public Recreation
RE2	Private Recreation
RU1	Primary Production
RU3	Forestry
RU4	Primary Production Small Lots
RU5	Village
SP2	Infrastructure

Proposed development

The proposed development can be described as follows:

- The solar farm will be constructed in two stages. It will feature ground-mounted, fixed panels, which will have a northern orientation. The frames will have a maximum building height of 3 metres (approximately).
- A drainage settling pond will be used on-site during construction in order to manage sedimentation.
- The undertaking of landscaping works to establish a visual screen between the solar farm and residential properties located to the north.
- Cabling works to connect the solar farm into the UNE grid.
- Stage 1
 - Construction of a solar farm with an approximate capacity of 3.2 MWdc.
 - Construction of a 2.1 metre tall security fence with a 50 centimetre tall scratch barrier

to prevent koalas from scaling the fence.

- Construction of all-weather vehicle access and vehicle access to the site from Clarks Road.
- Stage 2
 - Construction of the second section of the solar farm. Stage 2 will have an approximate capacity of 5.2 GWh.
 - Installation of battery storage containers. This will entail the installation of four battery storage containers within the Stage 1 footprint. Each container will have a length of 12 metres and a height of 2.3 metres.
 - Construction of a meteorological station within the Stage 1 footprint. The station will comprise two components. "Support structure 1" will have a height of 3.8 metres and "Support structure 2" will have a height of 2.8 metres (approximately). The station is required to measure irradiance, wind, rain and temperature data to assess the performance of the solar farm.
 - In regard to security fencing and vehicle access, the Stage 1 arrangement will be duplicated.

Referrals undertaken and other approvals required

No external referrals were undertaken, or required to be undertaken, in relation to the application.

Political Donations

At the time of lodging the DA the applicant indicated, pursuant to Section 147(4) of the Act, that no reportable political donation or gift had been made by the applicant or any person with a financial interest in this application to a local Councillor or employee of Armidale Regional Council.

Assessment - Matters for Consideration

The assessment of this DA has been undertaken in accordance with Section 79C(1) of the Act. In determining a DA, a consent authority is to take into consideration the following matters:

Section 79C(1)(a) the provisions of the following that apply to the land to which the development application relates:

(i): the provisions of any environmental planning instrument

State Environmental Planning Policies:

The following SEPPs have been considered in connection with this development:

SEPP No. 44 (Koala Habitat Protection) 2004

Clause	Subject	Comments
Part 2 – Clauses 6 to 10	Development control of koala habitats	The applicant has undertaken a flora and fauna report which has included comment upon koalas. The subject site has been identified as being "Potential Koala Habitat" but not "Core Koala Habitat". A Koala Management Plan has been prepared for UNE, but this plan is not inclusive of the subject site. It is noted that the application seeks approval to remove nine koala feed trees. The report submitted with the application offers no objection to the removal of the koala feed trees subject to the undertaking of compensatory

		planting. In accordance with the current requirements of the Department of Planning and the Environment, replanting should be undertaken at a rate of five new trees for every single tree removed. As the subject site is not “Core Koala Habitat” a Koala Management Plan is not required to be prepared. The applicant has indicated further that separate approval for the proposed tree removal may be required from Local Land Services under relevant legislation.
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SEPP No. 55 (Remediation of Land)

Clause	Subject	Comments
7	Contamination and remediation to be considered in determining development application	<p>The subject site is not identified as being potentially contaminated within Council’s information records. In regard to likely contamination, the applicant has indicated that there is no knowledge of past activities which may have resulted in land contamination. Looking at the SEPP, the following comments are made:</p> <ul style="list-style-type: none"> • While the subject site is currently used for training purposes associated with agricultural studies, it is not used for commercial farming purposes. • The proposed development does not constitute a sensitive land use. • A review of Council’s records has not revealed past land uses likely to result in contamination. • A site inspection did not reveal apparent signs of contamination. <p>On the basis of the above, the undertaking of a Preliminary Site Investigation was not considered warranted.</p>

SEPP (Infrastructure) 2007

Clause	Subject	Comments
Part 3, Division 4, Clauses 33 to 39	Development controls – Electricity generating works or solar energy systems	As stated earlier in this report, it is this SEPP which enables a DA to be lodged on land within the RU4 Zone. This particular part of the SEPP is considered to be relevant to those components which are generating electricity as opposed to ancillary components which are conveying electricity.
Part 3, Division 5, Subdivision 1, Clauses 40 to 43	Development controls – Electricity transmission or distribution – Electricity transmission or	This section of the SEPP refers to the transmission of electricity. The proposed cabling is considered to be a form of works permitted without consent.

	distribution	
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SEPP (Rural Lands) 2008

Clause	Subject	Comments
Part 2	Rural Planning Principles	The subject site is zoned RU4, being a rural zone within the LEP. The subject site is considered to be removed from typical consideration as an agricultural unit, given it is currently used for teaching purposes. The applicant has indicated that the conversion of the subject site to a solar farm does not jeopardise on-going teaching activities of an agricultural nature given the extent of farming land held by UNE. It is further noted that upon the decommissioning of the solar farm (if this occurs), it will possible to return the land to its current pastoral state.

Local Environmental Plan

The ***Armidale Dumaresq Local Environmental Plan 2012*** has been considered in connection with this development:

Clause	Subject	Comments
Part 2 – Permitted or prohibited development	Land use table under Part 2 (Permitted or prohibited development)	<p>The objectives for the RU4 Zone are as follows:</p> <ul style="list-style-type: none"> <i>To enable sustainable primary industry and other compatible land uses.</i> <i>To encourage and promote diversity and employment opportunities in relation to primary industry enterprises; particularly those that require smaller lots or that are more intensive in nature.</i> <i>To minimise conflict between land uses within this zone and land uses within adjoining zones.</i> <p>The proposed development is not considered to be contrary to zone objectives. The use of the land for a solar farm will not conflict with adjoining agricultural land use (agricultural pursuits being the primary purpose of the zone). It is noted further that should the solar farm be decommissioned, it is possible to restore the site to its original pastoral condition.</p> <p>Refer to comment earlier in this report in regard to permissibility.</p>
Part 6 – Additional local provisions	Clause 6.3 – Airspace operations	The subject site is partially located underneath the Obstacle Limitation Surface mapped for the Armidale Airport. All structures associated with the development are low in scale (under 4 metres in height) and would not penetrate the minimum 1180 AHD level passing over the subject site. The maximum contour level for the subject site is 1060 AHD (being a difference of 120 metres).

(ii): the provisions of any draft environmental planning instrument

There are not considered to be any draft instruments which have bearing upon this application. It is noted that SEPP No. 44 (Koala Habitat Protection) 2004 and SEPP No. 55 (Remediation of Land) are in the process of being reviewed. At this time however draft instruments have not been released.

(iii): the provisions of any Development Control Plan

The table below outlines the relevant provisions of the DCP that have been considered in connection with the application:

Chapter	Comment
Chapter 2.5, Section 3.2 – Contaminated land – Development proposals and changes of use	Refer to comments made above in relation to SEPP No. 55 (Remediation of Land).
Chapter 2.4 – Aboriginal heritage	The applicant has provided comment on the likely presence of items of significance. It was concluded that such likelihood was low. A search of the Aboriginal Heritage Information Management System (AHIMS) was undertaken on Lot 478 in DP755808 including a buffer distance of 200 metres around the site. No items have been recorded on the site or within the buffer. It is recommended that an advising note be included on any consent issued alerting the consent holder to legal obligations should items be uncovered during the course of works.

(iiia): the provisions of any planning agreement that has been entered into under section 93F, or any draft planning agreement that a developer has offered to enter into under section 93F

Not applicable.

(iv): the provisions of the regulations

The regulations have been taken into consideration where relevant.

79c(a)(v): the provisions of any coastal zone management plan (within the meaning of the *Coastal Protection Act 1979*)

Not applicable.

79C(b): the likely impacts of the development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality

This assessment has been undertaken having regard to various issues, as follows:

Construction Impacts

A proposed condition of consent will require the preparation of a Construction Management Plan. It is also recommended that a condition be included on any consent issued, imposing hours of construction.

Consideration of Crime Prevention through Environmental Design (CPTED)

The solar farm will be enclosed with transparent style fencing. The fencing will allow views towards the facility while providing the necessary security. In this way, the proposed development is not considered to result in the creation of unsafe spaces.

Utility Infrastructure Impacts

Assessment of the application was not identified a need to upgrade existing road infrastructure. A condition has been recommended which requires the applicant to undertake a dilapidation report pre and post-construction to in order to repair any damage to public roads sustained during construction.

Traffic and Parking Impacts

Once the solar farm is operational, vehicle movements to and from the subject site will be minimal, considering the solar farm is to be unmanned. A Construction Management Plan is recommended as a condition of consent requiring approval of traffic control measures during construction (including the nomination of heavy vehicle routes through the LGA in order to reach the subject site).

Economic impacts

The application has been lodged on the basis that the proposed solar farm will result in an eventual reduction of operating costs for UNE. This is considered to contribute to the on-going viability of UNE, which in turn has social and economic flow-on effects for the wider LGA.

Other potential environmental impacts

A flora and fauna assessment was submitted with the application and includes specific comment on SEPP No. 44 (Koala Habit Protection) 2004 (refer to comments made above in relation to the impact of the development on Potential Koala Habitat). In terms of flora and other fauna, the report indicates that no threatened species were identified during site visits and that no critically listed habitats under the Threatened Species Conservation Act, 1995 are found on-site.

In terms of potential glare, it is not anticipated that the solar farm will impact upon the operation of the Armidale Airport. The applicant has provided a modelling rationale demonstrating that the proposed facility will not impact upon aircraft passing overhead, particularly as aircraft approaches the airport for landing.

79C(c): the suitability of the site for the development

The subject site is considered suitable for the proposed development for the following reasons:

- The subject site is not located within proximity to residential zones or developed residential areas.
- The establishment of a landscaping buffer to protect views from the north is considered to be achievable.
- Access to the subject site is easily achieved from Clarks Road.
- Upon decommissioning of the solar farm (should this occur), the land can be restored to its current form.
- It is possible to manage environmental impacts associated with the removal of koala habitat through the undertaking of compensatory planting.

79C(d): any submissions made in accordance with the Act or the Regulations

Agency submissions

Not applicable.

Public submissions

The submitted DA was publicly exhibited in accordance with the DCP. This included notification by mail to adjoining landowners. The following properties were notified:

- 128 Kirby Road, Armidale
- 112 Weirs Road, Armidale
- 187 Clarks Road, Armidale

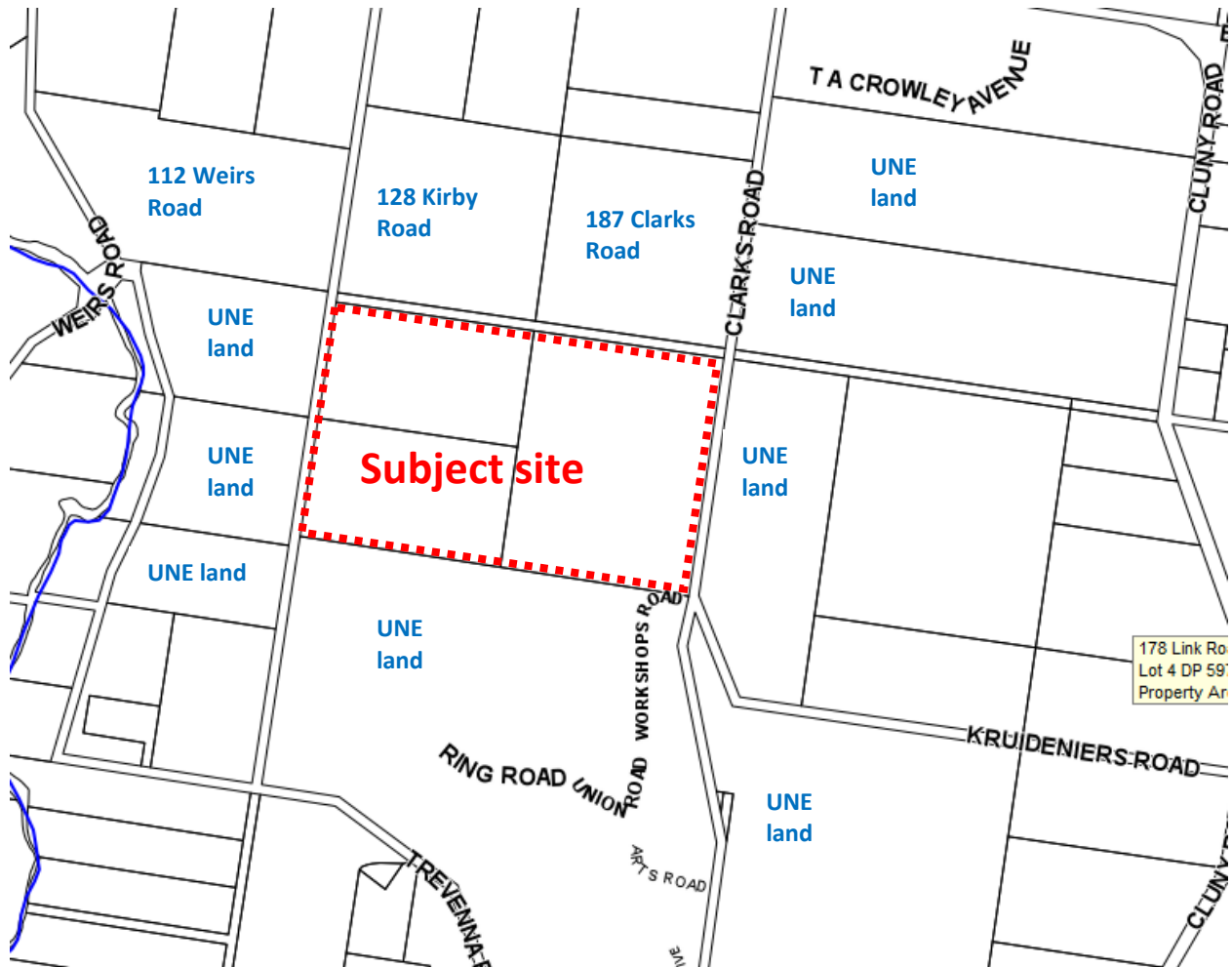


Figure 3: Map showing ownership of land adjoining the subject site.

The period for response was from 20 September 2017 to 6 October 2017.

Two public submissions were received. The submissions were forwarded to the applicant for consideration. Copies of the submissions and the applicant's response have been forwarded to the JRPP.

An assessment of these public submissions is provided in the table below.

Issues Raised	Assessment comment
Views towards the solar farm from residential properties	<p>In terms of providing a visual screen, the applicant has proposed a number of planting options:</p> <p><u>Option 1:</u> Planting along the northern boundary of Lot 478 in DP755808 and Lot 796 in DP755808 (combination of shrub and tree planting).</p> <p><u>Option 2:</u> Planting along the northern boundary of Lot 478 in DP755808 and Lot 796 in DP755808 and also within adjoining road reserve, owned by UNE and registered as Lot 21 in DP112693 (combination of native shrub, native trees and non-native plantings).</p> <p><u>Option 3:</u> Planting along the waterway which passes through Lot 478 in DP755808 and Lot 796 in DP755808 and also within adjoining road reserve (Lot 21 in DP112693) (combination of non-native plantings and native shrub and tree planting).</p> <p><u>Option 4:</u> Planting along the northern edge of the security fencing which will enclose Stages 1 and 2 of the proposed solar farm (combination of native shrub and tree planting).</p> <p>A condition of consent is recommended requiring the preparation of a landscape plan in relation to the visual screen. The plan would be prepared in consultation with Council.</p>
Adverse impacts during the construction phase	It is recommended that a Construction Management Plan be prepared to manage potential impacts (e.g. dust, traffic movements etc). It is also recommended that construction hours be imposed in order to reduce impacts such as noise to adjoining land.
Omission of impacts of development on 128 Kirby Road, Armidale within the Statement of Environmental Effects	The applicant has provided further response in relation to this omission.
Concerns relating to glare towards adjoining residences and road users	Solar panels are designed to absorb sunlight. For this reason a design objective is the reduction of reflective qualities. It is not anticipated that the panels will result in unreasonable glare or nuisance.
Sedimentation entering waterway located on the subject site and potential downstream impacts	Sedimentation will be managed though the construction phase. A condition has been recommended which requires a suitably qualified engineer to prepare the stormwater solution for the development. Any direct discharge of stormwater to the waterway may require approval from the Department of Primary Industries – Water.
Solar farm will result in land use conflict	It is not anticipated that the solar farm will result in land use conflict. The facility once constructed will not generate noise and will be largely unmanned. The establishment of a landscaping screen will assist in obscuring southern views towards the farm.
Objection to re-zoning of land	Re-zoning of the subject site is not required. The proposed

in order to facilitate the development	development is permissible with consent under the SEPP (Infrastructure) 2007.
Loss of land value	This is not considered to be a planning consideration given the difficulty in determining true property devaluation (as opposed to perceived property devaluation).

79C(e) the public interest

The proposed development is considered to be in the public interest for the following reasons:

- It is not inconsistent with the aims of LEP and is compliant with applicable statutory planning provisions;
- The application meets with broad objectives relating to sustainable development; and
- The on-going development of UNE is considered to be of social and economic importance to the wider LGA.

State Plan 2021

The proposed development is not considered to contravene the intent of this plan.

Council's Community Strategic Plan 2011

The proposed development is not considered to contravene the intent of this plan.

Building Code requirements

The installation of the solar panel frames, the meteorological station and the security fencing would ordinarily require the issue of a Construction Certificate certifying design compliance against the BCA. As UNE is considered to be a Crown Authority, the obtaining of Construction Certificates is not mandatory, falling instead to a process of self-certification conducted by the authority. Notwithstanding, the proposed conditions of consent make reference to ensuring compliance with the BCA.

Ecologically Sustainable Development

The proposed solar farm is considered to contribute to broad objectives relating to ecologically sustainable development. The increased reliance upon renewable energy by UNE is a positive environmental outcome.

Assessment Conclusion

The proposed development is considered to be generally satisfactory. The primary issue for consideration is the visual impact of the solar farm, given sensitive views from adjoining land to the north (namely 128 Kirby Street, Armidale and 187 Clarks Road, Armidale). The use of screening vegetation will act to obscure views however a detailed landscape plan will need to be prepared based upon the four options put forward by the applicant. It is recommended that this plan be prepared in consultation with Council and that greater topographical analysis be undertaken to ensure that the placement of vegetation acts to effectively restrict sight-lines towards the solar farm. Other aspects of the development are considered to be managed via conditions of consent. On this basis it is recommended that conditional consent be granted.

Recommendation

That DA-137-2017 be granted on land known as 303 Cluny Road, Armidale (Lot 478 in DP755808, Lot 794 in DP755808 and Lot 796 in DP755808) for a Solar Farm and Associated Infrastructure subject to the conditions set out in Appendix 1.

Linda Graham

Town Planner, Armidale Regional Council

24 February 2018

Appendix 1 – Proposed Conditions of Consent

PRESCRIBED CONDITIONS

For the purposes of section 80A (11) of the Act, the following conditions are prescribed condition of development consent:

136A EP&A Regs 2000: Compliance with Building Code of Australia

- (1) For the purposes of section 80A (11) of the Act, the following conditions are prescribed in relation to a development consent for development that involves any building work:
 - (a) that the work must be carried out in accordance with the requirements of the *Building Code of Australia*.
- (2) This clause does not apply:
 - (a) to the extent to which an exemption is in force under clause 187 or 188, subject to the terms of any condition or requirement referred to in clause 187 (6) or 188 (4).
- (3) In this clause, a reference to the *Building Code of Australia* is a reference to that Code as in force on the date the application is made for the relevant:
 - (a) development consent, in the case of a temporary structure that is an entertainment venue, or
 - (b) construction certificate, in every other case.

NOTE: There are no relevant provisions in the Building Code of Australia in respect of temporary structures that are not entertainment venues.

1. To ensure this development is consistent with Council's consent, the development must take place in accordance with the approved plans (bearing the Armidale Regional Council approval stamp); and all other documents submitted with the application, and subject to the consent conditions in this notice. In the event of any inconsistency between the approved plans and the conditions of this consent, the conditions shall prevail.

The approved plans are attached to this consent notice and are listed below:

Plan Drawer	Plan Numbers / Revision	Date
Aurecon	Drawing No. 251025-0000-DRG-EG-0010, Rev. D (Solar Farm Layout)	25/10/2017
Aurecon	Drawing No. 251025-0000-DRG-EG-0011, Rev. A (Property Setbacks)	24/10/2017
Aurecon	Drawing No. 251025-0000-DRG-EG-0045, Rev. A (Development Application Details)	24/10/2017

ADVISING: Further consent may be required for any change, enlargement or intensification of the premises or land use, including the display / erection of any new structure such as signage, partition walls or building fit-out (unless the proposed work is exempt from the need for consent). Please check with Council before commencement.

2. All Engineering works to be designed by a competent person and carried out in accordance with Council's Engineering Code, unless otherwise indicated in this consent, to ensure that these works are of a sustainable and safe standard.

3. Existing trees on the site are to be retained and protected from damage during work on the site, (with the exception of the nine eucalyptus trees identified for removal on Drawing No. 251025-000-DRG-EG-001, Rev. A, Prepared by Aurecon 24/10/2017), to maintain the visual amenity of the locality and no buildings constructed or utility service mains installed within 3 metres of the trunks of these trees, so as not to prejudice their future retention.

Approved tree removal shall be carried out by an appropriately qualified person (e.g. tree surgeon) to avoid any risk to life or damage to property. This person shall have adequate public liability insurance cover.

4. Prior to the commencement of construction, the decommissioning of the development or the cessation of operations for each stage, the applicant must notify Armidale Regional Council in writing of the date of commencement or cessation (whichever is relevant).

CONDITIONS REQUIRING ACTION BEFORE CONSTRUCTION WORKS COMMENCE

5. The applicant must ensure that all new structures are constructed in accordance with the relevant requirements of the Building Code of Australia. A structural engineer is required to design the footings for all new structures.
6. The preparation of an Erosion and Sediment Control Plan (ESCP) and accompanying specifications for the construction phase of the works, prepared by a suitably qualified/experienced person and based on the Landcom manual *"Soils and Construction, Managing Urban Stormwater, Vol 1 4th Edition, March 2004"*, shall be completed prior to works commencing on the site. The ESCP controls shall be implemented and inspected by a suitably qualified/experienced person prior to the commencement of any site works and maintained for the life of the construction period and until revegetation measures have taken hold. The ESCP shall include, but not be limited to:
 - Provision for the diversion of run-off around disturbed areas;
 - Location and type of proposed erosion and sediment control measures;
 - Location of and proposed means of stabilisation of site access;
 - Approximate location of site sheds and stockpiles;
 - Proposed staging of construction and ESCP measures;
 - Clearance of sediment traps on a regular basis and after major storms;
 - Proposed site rehabilitation measures, including seeding of all bare un-grassed areas and turfing where erosion or scouring is likely to occur;
 - Standard construction drawings for proposed erosion and sediment control measures.

ADVISING: Failure to take effective action may render the developer liable to prosecution under the NSW Protection of the Environment Operations Act.

7. The discharge of stormwater is to be controlled to ensure that post-development flows do not exceed pre-development flows. The stormwater solution is to be designed by a suitably qualified engineer to prevent nuisance to adjoining land.

ADVISING: Approval from the Department of Primary Industries – Water may be required if it is proposed to discharge stormwater directly into the existing waterway which passes through Lots 478 and 796 in DP755808.

8. Prior to works commencing a detailed Construction Management Plan is to be prepared for the site, in consultation with Armidale Regional Council, to ensure that work is undertaken safely and to minimise nuisance to the surrounding area during all on-site construction and work. This plan shall include, as a minimum, provision for:

- Off-street parking for employees, contractors, sub-contractors and visitors to the site.
- Public parking during construction.
- Site access for construction vehicles and equipment.
- Storage and removal strategies for construction wastes.
- Construction Traffic Management Plan. The plan is to include:
 - Details of the transport route to be used for development-related traffic;
 - The origin, destination, number, loads, weights and lengths, frequency, including peak and daily traffic volumes and destination of vehicles accessing/exiting the site;
 - A protocol for undertaking dilapidation surveys to assess the:
 - existing condition of Clarks Road prior to construction or decommissioning activities; and
 - condition of Clarks Road following construction or decommissioning activities.
- A protocol for the repair of any roads identified in the dilapidation surveys to have been damaged during construction, upgrading or decommissioning works;
- Details of the measures that would be implemented to minimise traffic safety issues and disruption to local users of the transport route/s during construction, upgrading or decommissioning works, including:
 - Temporary traffic controls, including detours and signage;
 - Notifying the local community about development-related traffic

impacts;

- Scheduling of haulage vehicle movements to minimise convoy length or platoons;
 - Responding to any emergency repair or maintenance requirements; and
 - A traffic management system for managing over-dimensional vehicles.
- Provision of sanitary amenities and ablution facilities for employees.
 - Fire precautions during construction.
 - Dust suppression.
 - Control of noise arising from the works in accordance with the requirements of the Protection of the Environment Operations Act 1997 and guidelines contained in the New South Wales Environment Protection Authority Environmental Noise Control Manual.
 - Fencing and security details, including site hoardings to be provided, safeguarding both contractors and the public while works are being carried out on any public footpath areas. Contractor should endeavour to minimise disturbance to pedestrian / vehicle traffic in the vicinity of the site.
 - Public footpath being protected from any paint spillages or other damage while work is being carried out.
 - Details of all construction-related signs.
 - Careful management of construction activities to prevent any contaminant discharge from the site (including oils, fuels, paints or chemicals), particularly with respect to excess concrete or concrete truck washings.
 - Location of all public utility facilities and methods of protecting them
 - Method of support to any excavation adjacent to adjoining properties, or the road reserve.

Following approval, the applicant must implement the plan.

9. For all construction work required on Council road reserves (e.g. vehicular footpath crossings, utilities and stormwater work, footpath paving, kerb and gutter etc.), the applicant is to submit an application to Council as the roads authority pursuant to Section 138 of the Roads Act, 1993 and obtain approvals for all such proposed work. These application(s) must be approved prior to works commencing on Council road reserves, to ensure that pedestrian and vehicular safety during construction has been addressed and that the work meets Council's relevant Engineering Code and other design standards for work in road reserves.

The proposal which will involve work/activity over public land, is to be protected by public liability insurance with a minimum cover of \$10 million, or such other amount as may be advised by Council.

10. Prior to works commencing (or any tree removal taking place), a landscape plan must be prepared in consultation with Armidale Regional Council which shows the following:
 - a) The planting of a visual screen to the north of Stages 1 and 2, based upon Options 1 to 4 as outlined in the document prepared by Aurecon (UNE Solar Farm, Landscaping Options, University of New England, Ref. 251025, Rev. 1, 21 December 2017). The planting must be capable of providing an effective screen to improve the visual amenity for adjoining land to the north and obscure views towards the solar farm. To this end the plan must take into consideration the land topography between Stages 1 and 2 and existing dwellings located at 128 Kirby Road, Armidale and 187 Clarks Road, Armidale; and
 - b) Adequate compensation for the removal of nine koala feed trees from within Lot 794 in DP755808. For every one koala feed tree removed, five koala feed trees must be planted.

The landscape plan must detail:

- Name and number of species (with preference on the use of native varieties).
 - Height of species at planting.
 - Height and spread of species at maturity.
 - Method of site preparation and maintenance, to ensure likely survival of plant stock.
 - Monitoring program to detect and replace dead or unhealthy plant stock.
11. Obtaining of any necessary approvals from the Department of Primary Industries – Water in relation to works within proximity to the existing waterway located on Lots 478 and 796 in DP755808.

DURING CONSTRUCTION WORKS

12. Any fill which is placed on the site shall be free of any contaminants and placed in accordance with the requirements of AS 3798 (current edition) *Guidelines on Earthworks for Commercial and Residential Developments*. A suitably qualified consultant shall:
- identify the source of the fill and certify that it is free from contamination; and
 - classify the area within any building envelope on any such filled lot in accordance with the requirements of "Residential Slabs and Footings" AS 2870.1 (current edition).

13. Effective dust control measures to be maintained during construction to maintain public safety/amenity and construction activities are to be restricted solely to the subject site.

ADVISING: Failure to take effective action may render the developer liable to prosecution under the NSW Protection of the Environment Operations Act.

14. The hours of building work on the development site are to be restricted to between 7.00am and 6.00pm on Monday to Saturday and only non audible building works are permitted between 8.00am to 1.00pm on Sundays, to maintain the amenity of the locality.

Any proposed building work to be undertaken outside these hours or on Public Holidays must be the subject of prior written agreement from Council - consideration may be given to special circumstances and non-audible work if applicable.

ADVISING: Breaches of this condition may result in the issuing of a Penalty Infringement Notice or prosecution.

15. Toilet facilities are to be provided at, or in the vicinity of the work site, at the rate of one toilet for every 20 persons or part of 20 persons employed at the site. Each toilet provided must be connected to an accredited sewage management facility approved by the council or some other sewage management facility approved by the council.
16. A hoarding or fence must be erected between the work site and any public place if the work is likely to cause traffic (pedestrian or vehicular) in a public place to be obstructed or otherwise inconvenienced. The erected hoarding is to comply with AS 4687 (current edition) - Temporary fencing and hoardings and be sufficient to prevent any substance from or in connection with the work falling into the public place. The work site must be kept lit between sunset and sunrise if it is likely to be hazardous to persons in the public place. The hoarding, fence or awning is to be removed once the work has been completed.
17. The development must be carried out in accordance with Managing Urban Stormwater: Soils & Construction (4th edition, Landcom, 2004), commonly referred to as the "Blue Book" and as in force at the date of this consent; to maintain public and environmental safety and amenity, and prevent erosion and sedimentation.

ADVISING: Failure to take effective action may render the developer liable to prosecution under the NSW Protection of the Environment Operations Act.

BEFORE COMMENCEMENT OF OPERATION

18. Prior to the commencement of the operation of the solar farm, the full visual plant screen, as approved under Condition 10 of this consent must be satisfactorily established.
19. The undertaking of compensatory planting of koala feed trees, as approved under Condition 10 of this consent. The planting must be undertaken upon removal of the trees, irrespective of whether removal occurs during Stage 1 or 2 works. The required compensatory planting must satisfactorily established prior to the commencement of operation. Furthermore, a title restriction must be created and registered on land which compensatory planting is to occur in order to protect the new koala feed trees in-perpetuity.
20. Following construction, the applicant must:
 - a) Restore the ground cover of the site as soon as practicable, using suitable species;
 - b) Maintain ground cover; and
 - c) Keep this ground cover free of weeds.
21. All security fencing is to incorporate scratch barriers to ensure that fencing containing barbed wire is clamber proof. This is to prevent the potential entanglement of koalas.

OPERATIONAL CONDITIONS

22. The applicant must ensure:
 - a) The internal roads are constructed as all-weather roads;
 - b) There is sufficient parking on site for all vehicles, and no parking occurs on the public road network in the vicinity of the site;
 - c) All vehicles are loaded and unloaded on site, and enter and leave the site in a forward direction; and
 - d) Vehicles leaving the site are in a clean condition and do not result in dirt being tracked onto the public road network.
23. In the event the solar is decommissioned, all decommissioning works, including site rehabilitation, are to be undertaken in accordance with the Statement of Environmental Works prepared by Aurecon (Ref. 251025, Rev. 2, 10 August 2017).
24. Any lighting used on site in connection with the development is to comply with AS 4282 – Control of the Obtrusive Effects of Outdoor Lighting.
25. The applicant must implement all reasonable and feasible measures to prevent and/or minimise any material harm to the environment that may result from the construction, operation, or decommissioning of the development.

26. On-going monitoring of the health and performance of the visual plant screen during the life operation of the solar farm. Plant stock must be replaced, whenever necessary, to ensure the screen continues to act as an effective visual barrier.
27. The applicant must:
- a) minimise the off-site visual impacts of the development, including the potential for any glare or reflection from the solar panels;
 - b) ensure the visual appearance of all ancillary infrastructure (including paint colours) blends in as far as possible with the surrounding landscape; and
 - c) not mount any advertising signs or logos on site, except where this is required for safety purposes.
28. The applicant must:
- a) Store and handle all dangerous or hazardous materials on site in accordance with AS1940-2004: The storage and handling of flammable and combustible liquids, or its latest version; and
 - b) Minimise any spills of hazardous materials or hydrocarbons, and clean up any spills as soon as possible after they occur.

ADVISING

Note 1

In the event that Aboriginal artefacts are identified on the site during development through earthworks or construction, the Applicant shall contact the National Parks and Wildlife Service (NPWS – part of the Office of Environment and Heritage) and cease work in the relevant location pending investigation and assessment of its heritage value by NPWS and the relevant local Aboriginal groups.

A 'Consent to Destroy' Application under section 90 of the National Parks and Wildlife Act 1974 must be submitted and issued by the Director-General of National Parks and Wildlife for any Aboriginal archaeological sites that are to be damaged or destroyed as a result of any development. The Applicant shall consult with the relevant local Aboriginal groups and to the satisfaction of the NPWS prior to any 'Consent to Destroy' Application being submitted.

For further information see the NPWS Code of Practice for Archaeological Investigations in NSW:

<http://www.environment.nsw.gov.au/licences/archinvestigations.htm>

Note 2

In the event that any relics, being any deposit, artefact, object or material evidence that:

- (a) relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement, and
- (b) is of State or local heritage significance,

are identified on the site during development through earthworks or construction, the Applicant/developer shall notify the NSW Heritage Council as required under s.146 of the Heritage Act 1977, as well as the Armidale Regional Council, of the find and await further advice before proceeding with the development.