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## Title of Proposal - Chinchilla Solar Farm

# Section 1 - Summary of your proposed action

Provide a summary of your proposed action, including any consultations undertaken.

### 1.1 Project Industry Type

Energy Generation and Supply (renewable)

### 1.2 Provide a detailed description of the proposed action, including all proposed activities.

A detailed Project description is provided in Section 1.3 of the appended report titled MNES Supporting Report.

The Project involves the development of a new photovoltaic (PV) solar generating plant, the construction of an onsite 132/33kV substation as well as a small operation and maintenance facility. The proposed site is located on one rural property (Lot 27 LY624), of which approximately 250.5 ha of the total 643 ha is to be cleared for the proposed solar farm. The current land use of these rural land lots is grazing, with some cropping land located to the east of the site

### 1.3 What is the extent and location of your proposed action? Use the polygon tool on the map below to mark the location of your proposed action.

Area	Point	Latitude	Longitude
Project Site	1	-26.652652798249	150.78561143475
Project Site	2	-26.652660123452	150.78611002668
Project Site	3	-26.652729508747	150.78561143475
Project Site	4	-26.654570545244	150.80020265179
Project Site	5	-26.655951303131	150.80003099042
Project Site	6	-26.661167348846	150.80689744549
Project Site	7	-26.669221068779	150.78612641888
Project Site	8	-26.663008249237	150.78423814374
Project Site	9	-26.652652798249	150.78561143475

### 1.5 Provide a brief physical description of the property on which the proposed action will take place and the location of the proposed action (e.g. proximity to major towns, or for off-shore actions, shortest distance to mainland).



The Chinchilla Solar Farm ('the Project') is located approximately 20 km along Chinchilla Wondai Road, north east from the town of Chinchilla. The Project site is located west of Pelican Back Road and south of Butts Road. The site is surrounded by rural land used for various agricultural activities. Land parcels to the west and north are primarily used for cattle grazing. Land parcels to the east are used as cropping land. South of the site is Charleys Creek, riparian vegetation and some cropping lands, before the boundary of the State Controlled Road, being the Chinchilla Wondai Road. Overall, the land uses within the Project area and surrounding region are predominantly open grazing pasture and cropping land.

**1.6 What is the size of the development footprint or work area?**

250.5 ha

**1.7 Is the proposed action a street address or lot?**

Lot

**1.7.2 Describe the lot number and title.** Lot 27 on LY624

**1.8 Primary Jurisdiction.**

Queensland

**1.9 Has the person proposing to take the action received any Australian Government grant funding to undertake this project?**

No

**1.10 Is the proposed action subject to local government planning approval?**

Yes

**1.10.1 Is there a local government area and council contact for the proposal?**

Yes

**1.10.1.0 Council contact officer details**

**1.10.1.1 Name of relevant council contact officer.**

Kym Bannerman

**1.10.1.2 E-mail**

kym.bannerman@wdrc.qld.gov.au



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### **1.10.1.3 Telephone Number**

07 4679 4348

### **1.11 Provide an estimated start and estimated end date for the proposed action.**

Start date 01/2018

End date 01/2053

### **1.12 Provide details of the context, planning framework and State and/or Local government requirements.**

The proposed solar farm uses consuetudes the start of a new use which is defined as a material change of use under the Sustainable Planning Act 2009.

The Sustainable Planning Act 2009 also defines reconfiguring of a lot as:

...(d) dividing land into parts by agreement rendering different parts of a lot immediately available for separate disposition or separate occupation, other than by an agreement that is—

(i) a lease for a term, including renewal options, not exceeding 10 years...

...(e) creating an easement giving access to a lot from a constructed road....

The Project is based on a 35 year lease arrangement between the applicant and the land owner and an access easement is also required to facilitate efficient and safe access to the lease area.

A combined Development Application incorporating the above three elements have been lodged with the Western Downs Regional Council addressing the local government requirements

### **1.13 Describe any public consultation that has been, is being or will be undertaken, including with Indigenous stakeholders.**

A letter prepared by AECOM on behalf of the applicant (First Solar) was sent to the local Aboriginal Party detailing the project description, proposed technology and the five key components to ground disturbance associated with the development. The letter asked the local Aboriginal Party to participate in a site visit with the applicant and AECOM's Cultural Heritage specialist. To date AECOM have not had a formal response to the letter however, verbal consultation and engagement with the party is ongoing.

### **1.14 Describe any environmental impact assessments that have been or will be carried out under Commonwealth, State or Territory legislation including relevant impacts of the**



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**project.**

The current proposal and relevant impacts have not been the subject of environmental impact assessments carried out under Commonwealth or State legislation. To date, studies commissioned in support of the Development Application are:

Glint and Glare Assessment

Surface Water Assessment

Traffic Impact Assessment

Protected Plants Report

Protected Plants Impact Management Plan.

**1.15 Is this action part of a staged development (or a component of a larger project)?**

No

**1.16 Is the proposed action related to other actions or proposals in the region?**

No



## Section 2 - Matters of National Environmental Significance

Describe the affected area and the likely impacts of the proposal, emphasising the relevant matters protected by the EPBC Act. Refer to relevant maps as appropriate. The [interactive map tool](#) can help determine whether matters of national environmental significance or other matters protected by the EPBC Act are likely to occur in your area of interest. Consideration of likely impacts should include both direct and indirect impacts.

Your assessment of likely impacts should consider whether a bioregional plan is relevant to your proposal. The following resources can assist you in your assessment of likely impacts:

- [Profiles of relevant species/communities](#) (where available), that will assist in the identification of whether there is likely to be a significant impact on them if the proposal proceeds;
- [Significant Impact Guidelines 1.1 – Matters of National Environmental Significance](#);
- [Significant Impact Guideline 1.2 – Actions on, or impacting upon, Commonwealth land and Actions by Commonwealth Agencies](#).

### 2.1 Is the proposed action likely to impact on the values of any World Heritage properties?

No

### 2.2 Is the proposed action likely to impact on the values of any National Heritage places?

No

### 2.3 Is the proposed action likely to impact on the ecological character of a Ramsar wetland?

No

### 2.4 Is the proposed action likely to impact on the members of any listed threatened species (except a conservation dependent species) or any threatened ecological community, or their habitat?

Yes

#### 2.4.1 Impact table

Species	Impact
Species: Eucalyptus argophloia	See Section 4 and Section 5.2 of appended



Species	Impact
TEC: Brigalow (Acacia harpophylla Dominant and co-cominant)	report titled 'MNES Supporting Report See Section 4 and Section 5.1 of appended report titled 'MNES Supporting Report

#### 2.4.2 Do you consider this impact to be significant?

No

#### 2.5 Is the proposed action likely to impact on the members of any listed migratory species, or their habitat?

Yes

##### 2.5.1 Impact table

Species	Impact
Apus pacificus	See Section 4 and Section 5.3 of appended report titled 'MNES Supporting Report'
Hirundapus caudacutus	See Section 4 and Sections 5.3 of appended report titled 'MNES Supporting Report'

#### 2.5.2 Do you consider this impact to be significant?

No

#### 2.6 Is the proposed action to be undertaken in a marine environment (outside Commonwealth marine areas)?

No

#### 2.7 Is the proposed action likely to impact on any part of the environment in the Commonwealth land?

No

#### 2.8 Is the proposed action taking place in the Great Barrier Reef Marine Park?

No

#### 2.9 Will there be any impact on a water resource related to coal / gas / mining?



No

**2.10 Is the proposed action a nuclear action?**

No

**2.11 Is the proposed action to be taken by the Commonwealth agency?**

No

**2.12 Is the proposed action to be undertaken in a Commonwealth Heritage Place Overseas?**

No

**2.13 Is the proposed action likely to impact on any part of the environment in the Commonwealth marine area?**

No



## Section 3 - Description of the project area

Provide a description of the project area and the affected area, including information about the following features (where relevant to the project area and/or affected area, and to the extent not otherwise addressed in Section 2).

### 3.1 Describe the flora and fauna relevant to the project area.

For a detailed discussion of flora and fauna relevant to the Project area refer to Sections 3.7 to 3.10 of the appended report titled 'MNES Supporting Report'

### 3.2 Describe the hydrology relevant to the project area (including water flows).

The Project site is located within the catchment of Charleys Creek which is a tributary of the Condamine River. The Condamine-Balonne Basin covers an area of approximately 150,000 km<sup>2</sup> and represents approximately 14.4% of the Murray Darling Basin. The site typically falls gently to the south with a maximum elevation of approximately 320 m AHD in the north-western corner and a minimum elevation of 233 m AHD located in the south-western corner.

Stormwater drainage from the proposed site drains into Charleys Creek. The confluence of Charleys Creek and the Condamine River is approximately 12.5 km southwest of Chinchilla and 32 km from the proposed Project site.

### 3.3 Describe the soil and vegetation characteristics relevant to the project area.

The Project site is a flat to gently undulating alluvial plain, with gilgai clay features interspersed throughout.

Refer to section 3.5 and 3.6 for discussion on vegetation characteristics.

### 3.4 Describe any outstanding natural features and/or any other important or unique values relevant to the project area.

No outstanding or unique values are known to the Project area.

### 3.5 Describe the status of native vegetation relevant to the project area.

The Project site has been predominately cleared of woody vegetation and is currently being utilised for cattle grazing. Variable condition grassland occurs across the site dominated to various extents by *Enteropogon ramosus*, *Dichanthium sericeum* subsp. *sericeum*, *\*Chloris*





*gayana*, *\*Bothriochloa pertusa*, *Bothriochloa bladhii* and *Aristida spp.* Two long linear patches of Brigalow (*Acacia harpophylla*) open forest to woodland have been retained onsite (running north/south), located on the western edge of the site, and within the centre of the site. These patches constitute 9 ha of the Brigalow (*Acacia harpophylla* dominant and co-dominant) TEC. Scattered *Acacia spp.* and *Eucalyptus spp.* occur across the remainder of the site. These include 120 individuals of the 'Vulnerable' species *Eucalyptus argophloia* (Queensland white gum), 95 of which will be retained.

The pre-clearance RE mapping for the site identifies the original plant communities as a mixture of three Regional Ecosystems, RE 11.3.1, 11.3.17 and 11.4.3b, with RE 11.3.1: *Acacia harpophylla* and/or *Casuarina cristata* open forest on alluvial plains (Queensland Herbarium 2016) being the dominant community originally present.

### **3.6 Describe the gradient (or depth range if action is to be taken in a marine area) relevant to the project area.**

The site typically falls gently to the south with a maximum elevation of approximately 320 m AHD in the north-western corner and a minimum elevation of 233 m AHD located in the south-western corner.

### **3.7 Describe the current condition of the environment relevant to the project area.**

The Project site has been predominately cleared of woody vegetation and is currently being utilised for cattle grazing. Variable condition grassland occurs across the site dominated to various extents by *Enteropogon ramosus*, *Dichanthium sericeum subsp. sericeum*, *\*Chloris gayana*, *\*Bothriochloa pertusa*, *Bothriochloa bladhii* and *Aristida spp.* Two long linear patches of Brigalow (*Acacia harpophylla*) open forest to woodland have been retained onsite (running north/south), located on the western edge of the site, and within the centre of the site. Scattered *Acacia spp.* and *Eucalyptus spp.* occur across the remainder of the site. These include 120 individuals of the 'Vulnerable' species *Eucalyptus argophloia* (Queensland white gum), 95 of which will be retained.

The pre-clearance RE mapping for the site identifies the original plant communities as a mixture of three Regional Ecosystems, RE 11.3.1, 11.3.17 and 11.4.3b, with RE 11.3.1: *Acacia harpophylla* and/or *Casuarina cristata* open forest on alluvial plains (Queensland Herbarium 2016) being the dominant community originally present.

### **3.8 Describe any Commonwealth Heritage Places or other places recognised as having heritage values relevant to the project area.**

No heritage values are recognised for the Project area.

### **3.9 Describe any Indigenous heritage values relevant to the project area.**



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There have been no previously recorded indigenous heritage values recorded within the Project area.

**3.10 Describe the tenure of the action area (e.g. freehold, leasehold) relevant to the project area.**

Freehold

**3.11 Describe any existing or any proposed uses relevant to the project area.**

The Project area is currently managed as a grazing property for cattle.



## Section 4 - Measures to avoid or reduce impacts

Provide a description of measures that will be implemented to avoid, reduce, manage or offset any relevant impacts of the action. Include, if appropriate, any relevant reports or technical advice relating to the feasibility and effectiveness of the proposed measures.

Examples of relevant measures to avoid or reduce impacts may include the timing of works, avoidance of important habitat, specific design measures, or adoption of specific work practices.

### **4.1 Describe the measures you will undertake to avoid or reduce impact from your proposed action.**

Refer to Section 6.0 of the appended report titled 'MNES Supporting Report' and Section 4.0 of the appended report titled 'Protected Plants Impact Management Plan – Chinchilla Solar Farm'.

### **4.2 For matters protected by the EPBC Act that may be affected by the proposed action, describe the proposed environmental outcomes to be achieved.**

To manage the impacts to the 25 Queensland white gum trees that are required to be removed, the Project is committed to ensuring the survival of the remaining population within the Project site, and attempting to propagate the species and rehabilitate within the current habitat of the species within the Project site. For the purposes of the Queensland white gum, an offset from the development area of 10 m is considered sufficient to protect this species from indirect impacts. The important factor is that the trees root zone is protected from compaction or damage. The habitat surrounding the Queensland white gum is already cleared non-remnant grassland, which is currently subject to grazing, and therefore is not considered a sensitive habitat type.

As the species is a large eucalypt tree, translocation of the trees is not an option. The best method of salvaging the genetic material of these trees is to collect and propagate the seed from the trees that are to be removed, and from trees within and adjacent to the Project site.

Management of the Project site within the habitat of the species will include the following:

- Replace eucalypt species at a ratio of 4:1, and include a contingency to replace any tubestock that die. It would therefore be appropriate to propagate at least 200 tubestock for replanting.
- Obtain seed from the Queensland white gum within the site by seed collector or local landholder and propagate at local commercial revegetation centre or landcare group.



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- Plant propagated eucalypt species, maintain and monitor for 5 years.
  - Watering of the seedlings during the first 6 months.
  - Planting should be undertaken to take advantage of the best climatic conditions, mild weather and rainfall.
  - Implement a weed management plan to manage any invasive or noxious weeds, or any pasture species that may limited the success of the tree planting effort.
  - Install weed matting around any seedlings planted.
  - Fence the area to prevent grazing by livestock and to reduce the impacts on the seedlings by rabbits and kangaroos.
  - Install tree guards around each seedling.
  - Monitor and maintain the planting for 5 years, until the trees are established.



## **Section 5 – Conclusion on the likelihood of significant impacts**

A checkbox tick identifies each of the matters of National Environmental Significance you identified in section 2 of this application as likely to be a significant impact.

Review the matters you have identified below. If a matter ticked below has been incorrectly identified you will need to return to Section 2 to edit.

### **5.1.1 World Heritage Properties**

No

### **5.1.2 National Heritage Places**

No

### **5.1.3 Wetlands of International Importance (declared Ramsar Wetlands)**

No

### **5.1.4 Listed threatened species or any threatened ecological community**

No

### **5.1.5 Listed migratory species**

No

### **5.1.6 Commonwealth marine environment**

No

### **5.1.7 Protection of the environment from actions involving Commonwealth land**

No

### **5.1.8 Great Barrier Reef Marine Park**

No

### **5.1.9 A water resource, in relation to coal/gas/mining**

No



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#### **5.1.10 Protection of the environment from nuclear actions**

No

#### **5.1.11 Protection of the environment from Commonwealth actions**

No

#### **5.1.12 Commonwealth Heritage places overseas**

No

**5.2 If no significant matters are identified, provide the key reasons why you think the proposed action is not likely to have a significant impact on a matter protected under the EPBC Act and therefore not a controlled action.**

All of the MNES identified as potentially occurring within the Project site were subject to a Significant Impact Assessment (refer to Section 5.0 of MNES Supporting Report for further detail). These assessments deemed that the Project was unlikely to have a significant impact on any of the MNES identified.



## **Section 6 – Environmental record of the person proposing to take the action**

Provide details of any proceedings under Commonwealth, State or Territory law against the person proposing to take the action that pertain to the protection of the environment or the conservation and sustainable use of natural resources.

### **6.1 Does the person taking the action have a satisfactory record of responsible environmental management? Please explain in further detail.**

First Solar have been responsible for the construction of 3 large scale solar farms within Australia, all three plants were constructed in accordance with the planning approval with no reportable Environmental Incidents.

### **6.2 Provide details of any past or present proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against either (a) the person proposing to take the action or, (b) if a permit has been applied for in relation to the action – the person making the application.**

None to report.

### **6.3 Will the action be taken in accordance with the corporation's environmental policy and planning framework?**

Yes

#### **6.3.1 If the person taking the action is a corporation, please provide details of the corporation's environmental policy and planning framework.**

First Solar is a leading global provider of comprehensive photovoltaic (PV) solar energy solutions that is creating enduring value by enabling a world powered by clean and affordable solar energy.

First Solar provides a safe work environment for all associates, contractors and site visitors and we strive to actively reduce the environmental impact of our activities through our commitment to continuous improvement. We design our PV products and installations to be safe for their intended use and to minimize their environmental footprint.

First Solar is committed to complying with all applicable Environmental, Health & Safety (EHS) regulatory requirements and applicable industry codes and standards. We foster a culture where EHS is an integral part of our associates' work and require our contractors and suppliers



to adhere to our standards and commitments.

First Solar engages and collaborates with a variety of stakeholders in order to achieve, maintain and improve upon our EHS performance leadership.

First Solar strives to conserve natural resources, minimize waste, protect biodiversity and native habitats, and prevent pollution from the manufacturing, construction, operation and end-of-life management of our PV products and installations.

**6.4 Has the person taking the action previously referred an action under the EPBC Act, or been responsible for undertaking an action referred under the EPBC Act?**

No





## Section 7 – Information sources

You are required to provide the references used in preparing the referral including the reliability of the source.

### 7.1 List references used in preparing the referral (please provide the reference source reliability and any uncertainties of source).

Reference Source	Reliability	Uncertainties
Bostock, P. D., & Holland, A. (2014). The Census of the Queensland Flora. Brisbane: Department of Science, Information Technology, Innovation and the Arts.	Reliable	Nil
Cropper, S. (1993). Management of Endangered Plants. East Melbourne, Victoria: CSIRO Publications.	Reliable	Nil
DEHP. (2016). Flora Survey Guidelines - Protected Plants Nature Conservation Act 1992. Brisbane: Department of Environment and Heritage Protection.	Reliable	Nil
Neldner, J. , Wilson, B. A., Thompson, J., & Dillewaard, H. A. (2012, August). Methodology for Survey and Mapping of Regional Ecosystems and Vegetation Communities in Queensland. 3.2. Brisbane: Department of Science, Information Technology, Innovation and the Arts.	Reliable	Nil
Queensland Herbarium. (2014). Regional Ecosystem Description Database. Brisbane: Department of Science, Information Technology, Innovation and the Arts.	Reliable	Nil
Queensland Herbarium. (2016). Collection and preserving plant	Reliable	Nil



Reference Source	Reliability	Uncertainties
specimens, a manual. 2nd edition. Brisbane: Department of Science, Information Technology and Innovation.		
Sattler, P., & William, R. (1999). The conservation status of Queensland's bioregional ecosystems. Brisbane: Environmental Protection Agency.	Reliable	Nil
Department of Environment and Energy (2017). Species Profile and Threats Database. Australian Government	Reliable	Nil



## Section 8 – Proposed alternatives

You are required to complete this section if you have any feasible alternatives to taking the proposed action (including not taking the action) that were considered but not proposed.

### 8.1 Select the relevant alternatives related to your proposed action.

#### 8.27 Do you have another alternative?

No



## Section 9 – Contacts, signatures and declarations

Where applicable, you must provide the contact details of each of the following entities: Person Proposing the Action; Proposed Designated Proponent and; Person Preparing the Referral. You will also be required to provide signed declarations from each of the identified entities.

### 9.0 Is the person proposing to take the action an Organisation or an Individual?

Organisation

#### 9.2 Organisation

##### 9.2.1 Job Title

Senior Manager - Project Devel

##### 9.2.2 First Name

Tom

##### 9.2.3 Last Name

Best

##### 9.2.4 E-mail

tom.best@firstsolar.com

##### 9.2.5 Postal Address

Level 3/16 Spring Street  
Sydney NSW 2000  
Australia

##### 9.2.6 ABN/ACN

ABN

66141686946 - First Solar (Australia) PTY LTD

##### 9.2.7 Organisation Telephone

02 9002 7700



### 9.2.8 Organisation E-mail

tom.best@firstsolar.com

### 9.2.9 I qualify for exemption from fees under section 520(4C)(e)(v) of the EPBC Act because I am:

Not applicable

### Small Business Declaration

I have read the Department of the Environment and Energy's guidance in the online form concerning the definition of a small a business entity and confirm that I qualify for a small business exemption.

Signature:..... Date: .....

### 9.2.9.2 I would like to apply for a waiver of full or partial fees under Schedule 1, 5.21A of the EPBC Regulations

No

### 9.2.9.3 Under sub regulation 5.21A(5), you must include information about the applicant (if not you) the grounds on which the waiver is sought and the reasons why it should be made

### Person proposing the action - Declaration

I, Thomas Best, declare that to the best of my knowledge the information I have given on, or attached to the EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. I declare that I am not taking the action on behalf of or for the benefit of any other person or entity.

Signature: [Signature] Date: 12/05/12

I, Thomas Best, the person proposing the action, consent to the designation of First Solar Australia Pty Ltd as the proponent of the purposes of the action describe in this EPBC Act Referral.

Signature: [Signature] Date: 12/05/12

### 9.3 Is the Proposed Designated Proponent an Organisation or Individual?



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Organisation

**9.5 Organisation**

**9.5.1 Job Title**

Senior Manager - Project Development

**9.5.2 First Name**

Tom

**9.5.3 Last Name**

Best

**9.5.4 E-mail**

tom.best@firstsolar.com

**9.5.5 Postal Address**

Level 3/16 Spring Street  
Sydney NSW 2000  
Australia

**9.5.6 ABN/ACN**

ABN

66141686946 - First Solar (Australia) PTY LTD

**9.5.7 Organisation Telephone**

02 9002 7700

**9.5.8 Organisation E-mail**

tom.best@firstsolar.com

**Proposed designated proponent - Declaration**

I, First Solar Australia Pty Ltd., the proposed designated proponent, consent to the designation of myself as the proponent for the purposes of the action described in this EPBC Act Referral.



Australian Government

Department of the Environment and Energy

Submission #2264 - Chinchilla Solar Farm

Signature:  Date: 12/05/12

**9.6 Is the Referring Party an Organisation or Individual?**

Organisation

**9.8 Organisation**

**9.8.1 Job Title**

Principal Environmental Scientist

**9.8.2 First Name**

Carleen

**9.8.3 Last Name**

Collier

**9.8.4 E-mail**

carleen.collier@aecom.com

**9.8.5 Postal Address**

Level 8/540 Wickham Street  
Fortitude Valley QLD 4006  
Australia

**9.8.6 ABN/ACN**

ABN

20093846925 - AECOM AUSTRALIA PTY LTD

**9.8.7 Organisation Telephone**

07 3553 2000

**9.8.8 Organisation E-mail**

carleen.collier@aecom.com

**Referring Party - Declaration**



Australian Government

Department of the Environment and Energy

Submission #2264 - Chinchilla Solar Farm

I, CARLEEN COLLIER, I declare that to the best of my knowledge the information I have given on, or attached to this EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence.

Signature: *Carleen Collier* Date: 11/05/2017





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## Appendix A - Attachments

The following attachments have been supplied with this EPBC Act Referral:

1. 60528404\_mnes\_supporting\_report\_final\_09052017\_optimized.pdf
2. g60528404\_010\_sitelocation\_20170503\_v1\_a3l.pdf
3. g60528404\_011\_sitelayoutplan\_20170503\_v1\_a3l.pdf
4. g60528404\_012\_terrestrialecologymnes\_20170503\_v1\_a3l.pdf
5. img\_0153.jpg
6. img\_0156.jpg
7. img\_0159.jpg
8. impact\_management\_plan\_chinchilla\_solar\_farm\_08may17\_final\_draft.pdf