Title of Proposal - Oakey Solar Farm, Warrego Highway, Oakey, Queensland

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.

Solar Farm

The proposed action will involve the clearing of 26ha of non-native and native grassland regrowth, and 179ha of cultivated land with Lease Area A on Lot 9 RP36475, Lease Area B on Lot 8 RP36475, Lease Area C on Lot 7 RP36475 and Lease Area D on Lot 1 RP48454, being located at 12871 Warrego Highway, Oakey, Queensland.

The proposed development involves the construction of a solar farm, within the lease areas, consisting of solar panels, steel module mounts, electrical transformers and inverters, electrical wiring, telecommunications equipment, electrical control structures, an informal employee parking area, perimeter fencing and access gates, and security lighting arrangements.

Gen-tie Route

In order to connect the solar farm to the electricity grid, a transmission line (gen-tie) is proposed to connect the solar farm to the Oakey Substation, via the Warrego Highway road reserve. The total length of the route is approximately 6km in length. The level of disturbance within the road reserve is expected to be minimal, with the disturbance area limited to 20-30 transmission poles and temporary disturbance during construction. The route alignment will avoid the clearing of preferred koala habitat identified within the corridor, but may result in the disturbance of non-native and native grasslands, expected to be less than 2 hectares.

It is noted that Canadian Solar Australia Pty Ltd (Canadian Solar) have engaged RCR Tomlinson Limited (RCR) as the Engineering Procurement Construction (EPC) contractor for the Project. RCR will be the organisation proposing to take the action (responsible entity) with Canadian Solar acting as the Designated Proponent for the purposes of this Referral.

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

Area	Point	Latitude	Longitude
Oakey Solar Farm	1	-27.400281640821	151.644857432
Oakey Solar Farm	2	-27.407058423196	151.66069405317
Oakey Solar Farm	3	-27.421757738824	151.65814960074
Oakey Solar Farm	4	-27.420544076979	151.65009825363
Oakey Solar Farm	5	-27.414104889943	151.6512376555
Oakey Solar Farm	6	-27.414711760236	151.65533950483
Oakey Solar Farm	7	-27.411947108616	151.65583303129
Oakey Solar Farm	8	-27.409182773811	151.64326226939
Oakey Solar Farm	9	-27.40021420163	151.644857432
Oakey Solar Farm	10	-27.40021420163	151.644857432
Oakey Solar Farm	11	-27.400315169711	151.64489519772
Oakey Solar Farm	12	-27.400281640821	151.644857432
Gen-tie Route Location	1	-27.402035403464	151.64907257848
Gen-tie Route Location	2	-27.401967583969	151.64907257848
Gen-tie Route Location	3	-27.401967583969	151.64907257848
Gen-tie Route Location	4	-27.400888577736	151.64960472455
Gen-tie Route Location	5	-27.425499584745	151.70717909543
Gen-tie Route Location	6	-27.427117724955	151.70687525144
Gen-tie Route Location	7	-27.425971922173	151.70512859903
Gen-tie Route Location	8	-27.402035403464	151.64907257848

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 Project is located at 12871 Warrego Highway, Oakey. The combined site is bounded by the Warrego Highway to the north and Cockburn Road to the west. Specifically, Lot 7 on RP36475 is adjacent to Cockburn Road and Lots 8 and 9 on RP36475 are situated next to the Warrego Highway. The Project also involves a 6km length of the Warrego Highway road corridor which will accomodate the gen-tie route linking the Oakey Solar Farm to the Oakey Substation. As part of the Preliminarey Biodiversity Assessment (ERM, 2014) there were two gen-tie route options investigated, being described as the Gen-tie Route North (GTNR) and Gen-tie Route South (GTSR) Study Areas.

The Project Area is within a rural locality and is surrounded by rural and resource related uses. The PV Facility Study Area has been predominantly cleared of vegetation and is currently used for cattle grazing and cotton cropping.The site is located in a rural area with the majority of surrounding land uses being agrarian in nature. A few farm buildings are clustered sporadically within adjacent properties. The nearest residential premises from the development area is approximately 400 metres to the north of the Project Area, on the opposite side to the Warrego Highway. Another residential dwelling is also located approximately 400 metres to the west of

Cockburn Road.

The nearest watercourse is Oakey Creek, which runs parallel to and approximately 2.5 kilometres to the south of the Warrego Highway, on parts of Lot 9 on RP36475 and Lot 1 on RP48454.

The Warrego Highway to the north of the site is administered by the Department of Transport and Main Roads as a National Route (Route 54). Additionally, a railway line runs parallel to the highway along its northern edge, opposite the Project Area.

An existing 33 kilovolt power line and two gas mains also run adjacent to the Project Area, parallel to the highway within the highway road reserve. The township of Oakey and the Oakey Power Station are located approximately 6 kilometres to the east of the Project Area, along the Warrego Highway, and is approximately 25 kilometres north-west Toowoomba.

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

205ha plus 6km gen-tie route

1.7 Is the proposed action a street address or lot?

Lot

1.7.2 Describe the lot number and title. Lot 1 on RP48454 & Lots 7-9 on RP36475

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?

No

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

Start date 03/2017

End date 04/2018

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

A Development Permit for Material Change of Use – Utility Installation and Reconfiguring a Lot (by lease agreement – five lease areas) was obtained from the Toowoomba Regional Council ('Council') on 21 April 2015, in accordance with Section 334 of the Sustainable Planning Act 2009 ('SPA'). A subsequent application for permissible change to the development was lodged and approved by Council, in accordance with Section 376 of SPA, on 18 October 2016. The Development Permit provides consent to develop an 80MW solar farm (over two stages) within the nominated lease areas.

The proponent is now in a position to progress the Project and is in the process of finalizing the gen-tie route location and associated approvals through the Department of Transport and Main Roads (Qld), and obtaining the necessary environmental approvals to construct the solar farm and gen-tie route.

The proponent is in the process of seeking a Road Corridor Permit in accordance with Section 50 of the Transport Infrastructure Act 1994 from the Department of Transport and Main Roads to construct the gen-tie route linking the solar farm to the Oakey substation, via a 6km stretch of the Warrego Highway road reserve. Negotiations with the Department of Transport and Main Roads in relating to the most appropriate location for the gen-tie route are ongoing, with a number of factors including setback to the Warrego Highway road pavement, proximity to existing services within the road corridor, and identified environmental features being considering in the final route alignment.

A Preliminary Biodiversity Assessment (ERM, 2014) of the proposed gen-tie route was completed in association with the Development Application Material Change of Use and Reconfiguring a Lot Development Permit in 2014 which involved a field survey and desktop review of environmental values of the Project Area. The report addressed the Vegetation Management Act 1999, the Nature Conservation Act 1994 and the Environmental Protection and Biodiversity Act 1994. Three (3) additional surveys were completed in 2016/2017 which included targeted field surveys of the two (2) proposed gen-tie route options and the solar facility.

A Targeted Field Survey Summary Report (ERM 2017) was produced which collates the surveys completed for the Project Area. The report noted that exemptions exist under the Electricity Act 1994 for vegetation clearing within the gen-tie route alignment in accordance with Schedule 24 of the Sustainable Planning Regulation 2009. With respect to the Nature Conservation Act 1994, the report concluded that no listed threatened flora species were identified from the field surveys and therefore an exempt clearing notification (protected plants) is being prepared to be submitted to the Department of Environment and Heritage Protection (Qld).

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

The proposed development was publicly notified through the local government development assessment process from 30 September to 23 October 2014.

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 project.

Nature Conservation Act 1994 - Exempt Clearing Notification (In Progress)

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
Natural grasslands on basalt and fine-textured	Clearing of up to 26.9ha of primarily non-native

Species	Impact
alluvial plains of northern New South Wales and southern Queensland	grassland and regrowth within Project Area. As reported in ERM, 2014 (attached), and ERM, 2017 (attached), the gen-tie route options (GTNR and GTSR Study Areas) are mapped as containing Regional Ecosystem (RE) 11.3.21 - Dichanthium sericeum and/or Astrebla spp. grassland on alluvial plains on cracking clay soils. This RE is one of two that equate with the Natural grasslands on basalt and fine-textured alluvial plains of northern New South Wales and southern Queensland (hereafter, 'Natural grasslands') TEC. Field surveys confirmed the presence of this RE, although unlikely to be the Natural Grasslands TEC due to the degraded nature of the grassland areas as a result of introduced grasses which were common and dominant in places (particularly Rhodes grass (Chloris gayana)), regular mowing, fire and disturbances associated with access tracks and the adjacent Warrego Highway and the Queensland Rail Western Line. The small (less than 2 ha) and highly localised impact arising from activities associated with the construction of power poles for the proposed transmission line, are unlikely to represent a significant impact to the Natural grasslands TEC.
Hawkweed (Picris evae)	Not likely to be impacted by Project. ERM, 2014 (attached) noted that this species is likely to occur in the Project Area. However, a targeted threatened flora species search in accordance with the Queensland Department of Environment and Heritage (2014) Flora Survey Guidelines – Protected Plants, as reported in ERM, 2017 (attached), did not detect any individuals of this species in the Project Area. Given that this species was not detected during targeted threatened flora surveys, it is not considered likely to be impacted by the project.
Koala (Phascolarctos cinereus)	As clearing will largely avoid the scattered tree species throughout the gen-tie route options (GTNR and GTSR Study Areas), potential impacts to potential breeding or foraging habitat for the koala is considered to be negligible, with potential impacts limited to grassland areas potentially traversed by the species. The species is likely to be an infrequent visitor to the

Species	Impact
	PV Facility Study Area due to the high level of disturbance from agricultural activities and the presence of limited habitat trees. The presence of the koala was confirmed as a result of observations of pellets located at the base of four koala habitat trees within the GTNR Study Area (Targeted Biodiversity Survey Summary Report (ERM, 2017)) (attached). The EPBC Act referral guidelines for the koala define habitat as 'critical to the survival of the koala' if it receives a score of five or more using the koala habitat assessment tool. Habitat within the GTNR, GTSR and PV Facility Study Areas received a score of four (4) based on the guidance provided in the habitat assessment tool and is therefore not considered habitat critical to the survival of the koala. While the Significant Impact Guidelines 1.1 state that actions are likely to have a significant impact on a vulnerable species if they adversely affect habitat critical to the survival of the species, as there is no habitat critical to the survival for koalas identified within the GTNR, GTSR or PV Facility Study Areas, there will be no significant impact to the species.
Condamine earless dragon (Tympanocryptis condaminensis)	The Condamine earless dragon (Tympanocryptis condaminensis) was identified to be likely to occur likely within the Project Area (ERM, 2017) (attached). The native and non-native grassland within the gen-tie route options (ERM, 2017) are considered to be foraging and sheltering habitat for the species, with a known single record from 2008 at the western edge of the Project Area. Within either of the proposed gen-tie routes, it is proposed that less than 2 ha of this native and non-native grassland habitat will be cleared. The PV Facility is proposed to be located in cropping land (205 ha) that is recognised as occasional foraging habitat. Due to the proposed disturbance of approximately 2 ha of foraging and sheltering habitat for the Condamine earless dragon, and 205 ha of cropping land that has been reported to be occasionally used by the species, an assessment against the Significant Impact Guidelines 1.1 was

Species	Impact
	completed for the species, which identified that the development of the Project is unlikely to significantly impact the Condamine earless dragon. Indeed, the replacement of cropping land with native and non-native grassland during operation of the PV facility is likely to be of benefit to the species.
Other listed threatened species include: • Bluegrass (Dichanthium setosum) • Austral toadflax (Thesium australe) • Brigalow woodland snail (Adclarkia cameroni) • Curlew sandpiper (Calidris ferruginea) • Painted honeyeater (Grantiella picta) • Black-breasted button-quail (Turnix melanogaster) • Murray cod (Maccullochella peelii)	Flora surveys did not identify the occurrence of Dichanthium setosum and Theisum australe in the Project Area. As such, these species are unlikely to be impacted by the Project. Suitable habitat for the brigalow woodland snail, curlew sandpiper and black-breasted button-quail does not occur in the Project Area. These species will not be impacted by the Project. Scattered eucalypts in the gen-tie route options may provide foraging habitat for the painted honeyeater, although this species is largely dependent on the occurrence of mistletoe. Clearing will largely avoid the scattered trees throughout the gen-tie route options, and thus, impacts to potential habitat for the painted honeyeater are considered to be negligible Suitable habitat for the Murray cod does not occur in the Project Area. This species will not be impacted by the Project.

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
To Fork-tailed swift (Apus pacificus)be completed	This species is considered likely to occur in the Project Area Refer to ERM, 2014 (attached). The species is exclusively aerial (Commonwealth of Australia, 2015), and is not

Species	Impact
	likely to be impacted by the Project.
White-throated needletail (Hirundapus caudacutus)	This species is considered likely to occur in the Project Area Refer to ERM, 2014 (attached). The species is almost exclusively aerial (Commonwealth of Australia, 2015), and is not likely to be impacted by the Project.
Latham's snipe (Gallinago hardwickii)	This species is considered likely to occur in the Project Area (ERM, 2014) (attached). While Latham's snipe is a species that is primarily associated with wetland habitats, it may also utilise waterlogged habitats in modified environments such as farmland and roadsides (Department of the Environment, 2017x). As such, after heavy rain, grassland within the Warrego Highway road reserve may provide potentially suitable foraging habitat for this species. Given the minimal loss of potential foraging habitat for Latham's snipe, impacts arising from the project—the clearing of less than 2 ha of degraded grassland habitat along the Warrego Highway, and conversion of 205 ha of cultivated land (including 24.9 ha of primarily non-native grassland regrowth) in the PV Facility Study Area — are not considered to be significant for Latham's snipe.

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.

Flora

Four one-day flora surveys have been conducted at the Project Area (January 2014, September 2016, November 2016 and January 2017). The methodology used in these assessments is described in ERM, 2014 and ERM, 2017. In brief, these surveys sought to ground-truth Regional Ecosystem (RE) mapping, and determine the presence of threatened plants in accordance with the Queensland Department of Environment and Heritage Protection Flora Survey Guidelines – Protected Plants (2014).

In summary, the following flora values characterise the Project Area:

The GTNR Study Area is mapped as Endangered RE 11.3.21 Dichnathium sericeum and/or Astrebla spp. grassland on alluvial plains on cracking clay soils.

The majority of the GTSR Study Area is mapped as Endangered RE 11.3.21 Dichnathium sericeum and/or Astrebla spp. grassland on alluvial plains on cracking clay soils.

RE mapping was confirmed in the field, although the RE is considered to be in poor condition due to the high cover of non-native species. Moreover, the vegetation is considered degraded being impacted by mowing, fire and non-native species, such that some patches within the mapped area would not be regarded as remnant vegetation.

Field surveys confirmed that the gen-tie route options (GTNR and GTSR Study Areas) are largely dominated by derived grassland, comprising a mix of native and non-native species with scattered mature and juvenile eucalypts. The grassland is largely dominated by native kangaroo grass (Themeda traindra), Queensland bluegrass (Dichanthium sericeum) and non-native rhodes grass (Chloris gayana) with sub-dominant non-native forbs and grassess present including Brassica sp., Verbena aristigera, Verbena bonariensis, Ambrosia sp., Anagallis arvensis, Avena sp., Nassella neesiana and Sorghum halepense. Other non-native species are present throughout the Study Area including prickly pear (Opuntia sp.), salsify (Tragopogon porrifolius), thistle (Cirsium sp. and Centaurea sp.), balloon cotton bush (Gomphocarpus physocarpus) and Agapanthus sp. with native Wahlenbergia sp. herb in small areas. Patches of planted and regrowth Eucalyptus spp. are present within the Study Area consisting of E camaldulensis, E. tereticornis, E. moluccana, E. sideroxylon, E. crebra and E. populnea.

The PV Facility Study Area is mapped as non-remnant. The field survey identified the PV

Facility Study Area to be largely dominated by cultivated land comprising of cotton up to a height of 1 m and open cultivated/exposed cultivated areas (180.1 ha). A minor component of the PV Facility Study Area (24.9 ha) contains non-native and native grassland regrowth (post-cultivation) to the north-east as well as a thin section of non-native and native grassland regrowth towards the centre of the Study Area. The mixed non-native and native grassland comprised largely of non-native Verbena aristigera, rhodes grass (Chloris gayana), prickly pear (Opuntia sp.), salsify (Tragopogon porrifolius), thistle (Cirsium sp.), balloon cotton bush (Gomphocarpus physocarpus), Setaria sp. and Brassica sp. and some native Queensland bluegrass (Dichanthium sericeum) also present.

Desktop searches revealed that flora species listed under the Queensland Nature Conservation Act 1992 (NC Act) were not recorded during field surveys, and are unlikely to occur in the project area.

Fauna

The Project Area occurs in a modified landscape that is dominated by agricultural production. As such, remnant native vegetation is highly fragmented, and confined to small patches and narrow linear strips. These remnants are exposed to a range of disturbances, and are altered by the occurrence of non-native species.

Field surveys – conducted in tandem with flora surveys (on the same dates outlined above) – sought to characterise habitat values for fauna (and fauna habitat), and identify the occurrence of conservation-significant species. In summary:

The Project Area is considered to be disturbed with low fauna habitat value.

Habitat features in the project area include dense grasses (including tussock grasses), dark cracking clays, small areas of deep leaf litter at the base of Eucalypts, and food sources including seeding grass cover and flowering Eucalypts.

Birds that are characteristic of grassland and agricultural (disturbed) environments were observed during field surveys, with nests being located at various locations within the project area.

Evidence of introduced species, including brown hare (Lepus capensis), red fox (Vulpes vulpes), dog (Canis lupus) and pig (Sus scrofa) was detected from the Project Area.

Evidence of koala (Phascolarctos cinereus) (Vulnerable EPBC Act and NC Act) in the form of faecal pellets at the base of scattered Eucalypts was detected in the GTNR Study Area. This species is discussed in more detail in Section 2.

A record of the Condamine earless dragon (Tympanocryptis condaminensis) (Endangered EPBC Act and NC Act) exists to the immediate north-east of the Project. This species is discussed in more detail in Section 2.

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

The Project Area does not intersect any substantial watercourses, nor does it contain any surface water bodies. Oakey Creek occurs to the south of the Project Area, and is approximately 140 metres south of the proposed PV Facility at its nearest point.

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

The flora values of the Project Area, as determined via desktop reviews and site visits, are described in Section 3.1. Native vegetation is highly fragmented in the landscape in which the Project Area occurs, as result of extensive agricultural production on the flat and fertile plains that characterise the broader region. Remnant grassland vegetation in the gen-tie route options—corresponding with RE 11.3.21—was observed to be degraded, and modified by processes including weed invasion, fire and mowing.

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

There are no outstanding natural features or any other important or unique values relevant to the Project Area which was identified during the development approval stage or through recent field surveys. The Project Area is used for cotton cropping and grazing. The wider site area is also used for rural and farming related purposes.

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

As outline in Section 3.1 and Section 3.3, native vegetation in the broader landscape surrounding the Project Area is highly fragmented, due to agricultural land use. Vegetation in the gen-tie route predominantly comprises remnant native grassland (RE 11.3.21), which is largely degraded and subject to multiple disturbances throughout. The PV Facility does not contain any remnant vegetation, and the majority (180.1 ha out of 205 ha) is under active cropping/agricultural production.

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

The topography of the Project Area is relatively flat, with the available topographic data indicating that there is a minor variation of approximately one metre across the site (ranging from 390m AHD to 391m AHD). The site typically falls at a grade of 0.1 percent to the south-west, with a small section of the site grading in a northwest direction at a similar 0.1 percent grade.

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

The broader landscape surrounding the Project Area is highly fragmented, due to agricultural land use. In addition to the occurrence of non-native plant species, the GNTR Study Area exhibits evidence of recent fire and mowing, with additional disturbances from a vehicle track (that runs parallel to the Western Line railway), noise pollution from the Warrego Highway and Western Line railway, and assorted rubbish disposed by passing motorists. Evidence of grassland maintenance in the form of mowing was also observed throughout the GTSR Study Area associated with vehicle tracks, the Old Warrego Highway, the Warrego Highway, Kearney Road, an existing transmission line easement and a gas pipeline easement. Additional disturbances from noise pollution associated with the Warrego Highway and Western Line railway and assorted rubbish disposed by passing motorists was also observed. Dog scat was also observed at one location. Ground and noise pollution disturbance associated with cultivation activities and the Warrego Highway and Western Line railway was identified from the PV Facility Study Area. Evidence of brown hare (Lepus capensis), red fox (Vulpes vulpes), dog (Canis lupus) and pig (Sus scrofa) was also observed.

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

Not Applicable

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

Not Applicable

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

Freehold and State Controlled Road Reserve

The Approved Oakey Solar Farm will be constructed within the following Lease Areas:

Lease A on Lot 9 RP36475 – 65.17ha

Lease B on Lot 8 RP36475 – 43.54ha

Lease C on Lot 7 RP36475 – 38.50ha

Lease D on Lot 1 RP48454 – 57.67ha

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

Currently, the development area on the Project Area is used for cotton cropping and grazing. The wider site area is also used for rural and farming related purposes. A single farm related building is located on Lot 1 on RP36475; however this is not situated within the Project Area. A Development Permit has been obtained by Canadian Solar Australia Pty Ltd to construct a 205ha solar farm within the nominated lease areas identified on the Approved Plans and as noted in Section 3.10 above. A copy of the Development Permit is attached for your reference.

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.

Details of the construction method are yet to be confirmed, however, it is anticipated that clearing of vegetation within the gen-tie route will be restricted to less than 2 ha of predominantly grassland vegetation and will largely avoid the need for removal of mature trees. Areas to be disturbed within the gen-tie route is largely related to access, construction and installation of utility poles. Within the PV Facility, clearing of 205 ha of largely cultivated land is proposed for the construction of the solar farm, and will involve returning the area to grassland communities during operation (therefore excluding future cultivation). It is anticipated that the construction period will largely be undertaken outside of recognised breeding seasons between July and September 2017 and over a period of 60 days. Such localised and short-term construction works will minimise likely impacts to species known, likely or have the potential to occur within the Project Area.

Furthermore, a range of measures and protocols will be enacted to avoid or reduce impacts to biodiversity values within the Project [DD1] Area. The following mitigation measures should be considered in the development of a construction environmental management plan to reduce the risk to biodiversity:

- Vehicle travel within the road reserve should be limited to that required for construction and maintenance activities, with vehicle speed limited to 20 km/hour to reduce the risk of fauna vehicle strike;

- A fauna spotter should be employed to survey clearing areas immediately prior to clearing. If fauna are identified in the proposed clearing area, operations in the area should cease until the fauna has moved to a safe location; and

- All construction staff should be made aware of the likely presence of threatened species, including the Condamine earless dragon (particularly in the non-native/native grasslands), and

be trained in characteristic features used for identification.

Should the fauna spotter or other members of the construction team identify the presence of the Condamine earless dragon, the Construction Environment Manager should be notified immediately, and the following implemented:

- Cease construction works within a 50m radius of the sighting;

- Undertake detailed field searches in line with the DSEWPC (2011) Survey Guidelines for Australian's threatened reptiles (with the fauna spotter) in the vicinity of the sighting;

- Where other individuals of the Condamine earless dragon are identified, additional mitigation measures (such as diversion of traffic, delayed construction allowing individuals to disperse, translocation of individuals to nearby suitable habitat, exclusion zones etc.) may be required to minimise impacts to the species;

- All Condamine earless dragon sightings should be recorded and spatial coordinates, date, time, photos (where relevant) and release point (where relevant) and documented in the Environment Register.

- Only commence construction activities in the area following instruction from the spotter catcher and the Construction Environment Manager.

- All personnel should report any injured fauna to the fauna spotter/Construction Environmental Manager; and

- Vehicle and machinery hygiene procedures should be implemented to avoid the spread of weeds.

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.

The Project is not considered to be a controlled action. Potential impacts to threatened species, threatened ecological communities, and migratory species that have the potential to occur at the Project Area are expected to be minimal, given the degraded and modified nature of the Project Area, and with specific reference to the gen-tie route, the minimal and highly localised disturbance footprint. No significant impacts to MNES are anticipated to arise as a result of this project.

Measures to reduce impacts to biodiversity that may arise as a result of the construction of the project are outlined in Section 4.2. Specifically, these measures seek to:

Limit the extent of disturbance to native habitat and vegetation communities;

Minimise the potential for fauna mortality during construction activities;

Limit potential for further degradation of the Project Area and surrounds via the spread of introduced plants.

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

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.

Potential impacts to threatened species, threatened ecological communities, and migratory species that have the potential to occur at the Project Area are expected to be minimal, given the degraded and modified nature of the Project Area (dominated by cultivated land).With specific reference to the gen-tie route, the minimal and highly localised disturbance footprint, no significant impact to MNES is anticipated to arise as a result of this project.

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.

Canadian Solar (Australia) Ptd Ltd has a satisfactory environmental management record with no action taken against the organisation during past projects.

6.2 Provide details of any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources.

Nil

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.

Refer to attached Construction and Environmental Management Plan

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
Preliminary Biodiversity Report (ERM 2014)	Report Provided	The Preliminary Biodiversity Assessment (ERM, 2014) included a field survey of the Warrego Highway road reserve (gen-tie route options) but not of the Project site itself. Observations were made during the field survey without accessing the site and desktop assessments were completed which addressed MNES at the time. As the survey and report was completed in 2014, this referral includes additional MNES that was not originally listed and therefore not discussed in the report.
Targeted Biodiversity Survey Summary Report (ERM 2017)	Report Provided	The Targeted Biodiversity Summary Report (ERM, 2017) and field surveys were completed in accordance with the Nature Conservation Act 1992 (Qld) under the Flora Survey Trigger Guidelines. The surveys were not targeted towards matters of national environmental significance. However, observations were made during the field survey and desktop reviews have been used to characterise the MNES which may impact the Project.
Commonwealth of Australia (2015), Draft referral guideline for 14 birds listed as migratory	Government Document	N/A

Reference Source	Reliability	Uncertainties
species under the EPBC Act, Commonwealth of Australia.		

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.

8.0 Provide a description of the feasible alternative?

Nil

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

General Manager

9.2.2 First Name

Daniel

9.2.3 Last Name

Ruoss

9.2.4 E-mail

Daniel.Ruoss@canadiansolar.com

9.2.5 Postal Address

Level 1

165 Cremorne Street
Richmond VIC 3121
Australia

9.2.6 ABN/ACN

ABN

61149125020 - Canadian Solar (Australia) Pty Limited

9.2.7 Organisation Telephone

+61 (03) 8609 1844

9.2.8 Organisation E-mail

support@canadiansolar.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: 7 February 2017

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

Declaration

I, Daniel Ruoss, 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:…… Date: 7 February 2017

I, Daniel Ruoss, the person proposing the action, consent to the designation of myself as the proponent of the purposes of the action describe in this EPBC Act Referral.

Signature:…… Date: 7 February 2017

9.3 Is the Proposed Designated Proponent an Organisation or Individual?

Organisation

9.5 Organisation

9.5.1 Job Title

General Manager

9.5.2 First Name

Daniel

9.5.3 Last Name

Ruoss

9.5.4 E-mail

Daniel.Ruoss@canadiansolar.com

9.5.5 Postal Address

Level 1

165 Cremorne Street
Richmond VIC 3121
Australia

9.5.6 ABN/ACN

ABN

61149125020 - Canadian Solar (Australia) Pty Limited

9.5.7 Organisation Telephone

+61 (03) 8609 1844

9.5.8 Organisation E-mail

support@canadiansolar.com

Declaration

I, Daniel Ruoss, 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.

Signature:…… Date: 7 February 2017

9.6 Is the Referring Party an Organisation or Individual?

Organisation

9.8 Organisation

9.8.1 Job Title

Partner

9.8.2 First Name

David

9.8.3 Last Name

Dique

9.8.4 E-mail

David.Dique@erm.com

9.8.5 Postal Address

PO Box 1400
Spring Hill QLD 4004
Australia

9.8.6 ABN/ACN

ABN

12002773248 - ENVIRONMENTAL RESOURCES MANAGEMENT AUSTRALIA PTY LIMITED

9.8.7 Organisation Telephone

+61 7 3839 8393

9.8.8 Organisation E-mail

David.Dique@erm.com

Declaration

I, DAVID DIQUE, 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: ..... Date: 10/02/17