Title of Proposal - Stage 2 Solar Farm Development, north-west of Collinsville, 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.

The proposed action involves the establishment of solar power photovoltaic (PV) facilities at Strathmore Road, Springlands (see Attachment B, Figure 1). The energy will be grid-connected through the adjacent and existing Strathmore Substation (managed by Powerlink) for transmission to the National Electricity Market. The PV facilities will be located within the Project Area (shown as the “Survey Area” in Attachment B, Figure 2) and the development has been designed to avoid significant impacts to MNES.

The nature of the proposed action is summarised below and described in further detail in Attachment C.

DEVELOPMENT COMPONENTS
The development will consist of solar panels mounted on a frame that track the sun to generate energy. The panels will be connected to inverter stations that convert the DC power to AC power, and will use integrated transformers to step the voltage up to 33kV. A medium voltage AC network will be installed in underground trenches to connect each inverter to a central switchgear.

The following components will be installed:
- Arrays of solar PV modules arranged in a series of long rows (generally 85 m) typically no higher than 2.1 m above the ground and supported by a steel and/or aluminium mounting structure including framing and piles which are either screwed or driven into the ground
- A series of prefabricated, containerised inverters distributed throughout the PV arrays
- Electrical connections between PV arrays, associated monitoring and protection equipment, and central inverters via underground or frame secured cabling
- A tracker actuation system
- Network interconnection facilities to connect the project to either or both of the high voltage distribution system via a new terminal or an overhead transmission line to Strathmore substation

Additional infrastructure that will be constructed on site to support operation includes: site office, site entry road, internal access tracks, car park, site fencing and associated security equipment.

Management zones will be established around infrastructure to provide for asset protection.

Specific activities for each phase of the proposed action (pre-mobilisation, construction, operation and decommissioning) are discussed in Attachment C.

FINAL PANEL LAYOUT
The final layout of the solar panels within the Project Area has not been finalised. Detailed design will ensure that there are no significant impacts to MNES and will be determined based on environmental and engineering constraints.

In particular, Edify Energy will ensure that the final layout and associated management zones will meet an impact limit to mapped Koala habitat that ensures significant impacts are avoided (as explained in Section 2.4.1 and Section 4).

CONSERVATION PROGRAM
A conservation program will be implemented as part of the proposed action (described in Section 4). This program will involve habitat restoration works along Crush Creek in an area that supports at least two Koala food trees and may also be a drought refuge for the species. Habitat restoration will provide a long term benefit to the Koala by excluding stock, encouraging regeneration of food trees, and managing weeds.

Restoration works along Crush Creek will also benefit the population of Black Ironbox that occurs along the waterway.

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
Indicative Project Area (refer to Attachment D for actual area)	1	-20.497784789727	147.77993216652
Indicative Project Area (refer to Attachment D for actual area)	2	-20.497784789727	147.77976050514
Indicative Project Area (refer to Attachment D for actual area)	3	-20.490388144219	147.73186698097
Indicative Project Area (refer to Attachment D for actual area)	4	-20.475593782764	147.74628653663
Indicative Project Area (refer to Attachment D for actual area)	5	-20.428628320882	147.74079337257
Indicative Project Area (refer to Attachment D for actual area)	6	-20.437153940136	147.80173316139

Area	Point	Latitude	Longitude
Indicative Project Area (refer to Attachment D for actual area)	7	-20.479614130871	147.79950156349
Indicative Project Area (refer to Attachment D for actual area)	8	-20.497784789727	147.77993216652

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 Solar Farm will be located approximately 10 km north-west of Collinsville, Queensland (see Attachment B, Figure 1). The Project Area (shown as the "Survey Area" in Attachment B, Figure 2):

- comprises approximately 2,385 ha of Lot 2 on RP742329, which is freehold land tenure; and

- is near to the Strathmore Substation operated by Powerlink.

The Project Area has been used for cattle grazing and lies to the north west of the existing Strathmore substation which is considered a juncture/node of the electrical transmission for north Queensland. The substation sits on a separate land tenure title.

Several electrical transmission easements traverse the Project Area connecting to the Strathmore substation. Other infrastructure present includes access tracks, fences and a number of small dams.

The Solar Farm has been designed to make use of the predominantly cleared and flat areas, avoiding and minimising impacts to areas of environmental constraint, and incorporates buffers to protect areas with environmental value.

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

Refer to Sections 1.2 & 2.4.1

1.7 Is the proposed action a street address or lot?

Lot

1.7.2 Describe the lot number and title. The development will occur on Lot 2 on RP742329.

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.

Matthew Twomey

1.10.1.2 E-mail

Matthew.Twomey@whitsundayrc.qld.gov.au

1.10.1.3 Telephone Number

07 4945 0641

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

Start date 07/2017

End date 02/2047

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

On 30 July 2015, a Development Permit (Negotiated) for a Material Change of Use – Major Utility (solar power PV facility) was issued by the Whitsunday Regional Council (WRC). A copy of this approval is attached (Attachment A1, A2 & A3). The development application was assessed in accordance with the *Sustainable Planning Act 2009* (Qld), which aims to achieve ecological sustainability in project developments. Under this Act, the WRC assessed the proposed action under the Integrated Development Assessment System (IDAS). The IDAS enables all social, environmental and economic matters to be addressed at the same time. It is important to note that under Queensland planning law, the Development Permit "attaches" to the land (i.e. Lot 2 on RP742329).

For the purposes of the *Environmental Protection Act 1994* (Qld), the proposed action will not involve any "prescribed ERAs" and as such, an environment authority will not be required.

Further, for the purposes of the *Nature Conservation Act 1992* (Qld), a flora survey trigger map obtained from the Queensland Department of Environment and Heritage Protection indicates that the Development Footprint is not in a "high risk area". This means that vegetation clearing can generally proceed without the need for a flora survey or protected plants clearing permit, subject to some requirements under this Act.

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

The Proponent has completed statutory public notification pursuant to the *Sustainable Planning Act 2009* (Qld), as part of the development application process associated with the WRC development approval. A single submission was received from an adjoining coal mine operator, Glencore. Glencore requested the applicant consider impacts from their operations (i.e. vibration from blasting and dust) when designing and operating the facility. The proponent undertook additional consultation with Glencore and these potential issues are manageable.

The Proponent has engaged with the local Birriah people (Registered Aboriginal Party) and concluded a Cultural Heritage Management Agreement on 17 November 2016. The agreement deals with matters including the protection, maintenance and use of land containing Aboriginal places and/or objects, the right for Aboriginal people to access, or use Aboriginal places and/or objects and any provision for the rehabilitation of Aboriginal places or objects.

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.

See Section 1.12. No further environmental impact assessment (beyond this EPBC referral) is required under Commonwealth, State or Territory legislation.

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?

Yes

1.16.1 Identify the nature/scope and location of the related action (Including under the relevant legislation).

The proposed action is related to the previously approved project on the southern portion of Lot

2 on RP742329 (EPBC 2016/7824). While both projects are entirely independent of each other, they are related as they will:

- Be undertaken by the same proponent

- Be of a similar nature

- Occur on the same property.

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
Squatter Pigeon (southern) (Geophaps scripta	Refer to Attachment E

Species	Impact
scripta)	
Koala (Phascolarctos cinereus) (combined populations of Qld, NSW and the ACT)	Refer to Attachment E
Black Ironbox (Eucalyptus raveretiana)	Refer to Attachment E

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?

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 AND FAUNA ASSESSMENTS

Two flora and fauna assessments have been undertaken at the Project Area:

- RPS (2016a) Solar Farm – Preliminary Ecological Assessment. Work completed in June 2016.

- ES&M (2017) Strathmore Solar Farm Project Stage 2. Ecological baseline report. Work completed in February 2017. (Attachment B).

SURVEY RESULTS

The assessments found that the Project Area contains seven vegetation communities classed as Remnant Vegetation (as per *Queensland Vegetation Management Act 1999*). These are described in detail in the attached ecological survey report (ES&M 2017; Attachment B). No vegetation communities mapped across the Project Area were considered to represent TECs listed under the EPBC Act.

Three threatened species were recorded within or near the Project Area:

- Koala (Phascolarctos cinereus).

- Squatter Pigeon (Geophaps scripta scripta).

- Black Ironbox (Eucalyptus raveretiana).

No significant impacts to these three MNES will occur as a result of the proposed action (as detailed in Section 2 of the referral).

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

The majority of the study area is characterised by gently undulated plains and low rises. A number of stream order 1 and 2 watercourses drain into Crush Creek that extends through the central portion of the Project Area. The south-western portion of the Project Area consists of lower-lying floodplains associated with Crush Creek. The Area also supports a number of shallow basins that support heavy, cracking clays.

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

Vegetation within the study area comprises a mix of open eucalypt woodlands, natural grasslands in shallow basins supporting heavier clay soils and riparian communities. All of the vegetation communities across the study area have been exposed to high levels of cattle grazing, but selective vegetation clearing has generally been restricted to the edges of communities that can be easily accessed from the local roads.

ES&M (2017) Determined that the regional ecosystems present within the Project Area consist of the following:

- 11.3.4 - Queensland Blue Gum (Eucalyptus tereticornis) and/or Eucalyptus spp woodland on alluvial plains

- 11.3.25 – Queensland Blue Gum or River Red Gum (E.camaldulensis) woodland fringing drainage lines

- 11.3.30 – Narrow-leaved Red Ironbark, Dallachy's Gum (Corymbia dallachiana) woodland on alluvial plains

- 11.4.4 – Dichanthium spp., Astrebla spp. grassland on Cainozoic clay plains.

- 11.12.1 – Eucalyptus crebra and/or Corymbia erythrophloia low woodland/woodland.

- 11.2.2 - Silver-leaved ironbark (E. melanophloia) on igneous rocks

- 11.2.7 - Narrow-leaved Red Ironbark woodland with patches of semi-evergreen vine thicket on igneous rocks (boulder-strewn hillsides)

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

Not applicable

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

The Project Area was found to support a mosaic of woodland vegetation, riparian communities and natural grasslands. Although cattle grazing has altered the condition and composition of the groundstorey, all vegetation within the study area was found to satisfy remnant vegetation status under the VM Act. The balance of the study area was found to support remnant least concern vegetation as listed in Section 3.3 above.

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

relevant to the project area.

Not applicable

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

The Project Area is currently used as a cattle grazing property and contains extensive areas of remnant open woodland and grasslands. Historical clearing of woody vegetation has been undertaken in patches along with potential selective clearing of trees and understorey vegetation at times.

Numerous watercourses drain the Project Area, the largest of which is Crush Creek flowing in a south-westerly direction.

Existing infrastructure and improvements on the Project Area includes access tracks, fences and a number of small dams.

No significant areas of erosion were observed during field investigations.

Infestations of Rubber Vine (Cryptostegia grandiflora), Parthenium (Parthenium hysterophorus) and Prickly Acacia (Vachellia nilotica) were recorded throughout natural grassland communities (i.e. RE 11.4.4; Figure 4) and riparian communities (i.e. REs 11.3.4, 11.3.25, 11.3.25a and the mixed polygon of RE 11.3.4/11.3.25/11.12.1) within the Project Area. All three species are weeds of national significance (WoNS) and also restricted invasive plants under the Biosecurity Act 2014. Mimosa Bush (Vachellia farnesiana) was also commonly recorded in these communities, but this species not recognised as a WONS or a restricted invasive plant.

The introduced pasture grass, Indian Blue Grass (Bothriochloa pertusa) was recorded in the groundstorey of most vegetation communities within the Project Area.

Two feral animals listed as restricted invasive animals under the Biosecurity Act 2014 were recorded during the field surveys, namely Feral Pig (Sus scrofa) and European Rabbit (Oryctolagus cuniculus). Other species that weren't directly observed, but are likely to be present and are known from the region, and include Wild Dog (Canis lupus) and Feral Cat (Felis catus). The introduced Cane Toad (Rhinella marina) is also highly likely to occur within the Project Area.

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.

Edify Energy Pty Ltd engaged with the local Birriah people (Registered Aboriginal Party) and concluded a Cultural Heritage Management Agreement on 17 November 2016. The agreement deals with matters including the protection, maintenance and use of land containing Aboriginal places and/or objects, the right for Aboriginal people to access, or use Aboriginal places and/or objects and any provision for the rehabilitation of Aboriginal places or objects. The Proponent is undertaking all reasonable steps to comply with s 28 of the Queensland Aboriginal Cultural Heritage Act 2003 Duty of Care guidelines and the provisions of the Queensland Heritage Act 1992.

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

The Project Area is freehold title.

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

The landscape is rural and characterised by uncultivated cattle pasture grasslands and remnant woodlands. The Project Area is encumbered by numerous easements in favour of various electricity entities.

There are no proposed uses (other than as a solar farm) of the Project Area.

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.

Edify Energy has undertaken a substantial set of work to understand the MNES values within the Project Area and define a process to avoid direct impacts to important habitat areas. This has included the following key pieces of work.

A Preliminary Environmental Assessment of the entire development consent area undertaken in June 2016 (RPS 2016a). This included the area subject to the Stage 1 EPBC referral (EPBC 2016/7824) as well as the area subject to this referral. The assessment identified the key features of the environment including known and potential occurrences of MNES.

The second set of work involved more detailed ecological surveys in February 2017 of the Project Area (ES&M 2017). This process involved intensive surveys and resulted in a detailed and accurate understanding of the vegetation composition, extent and associated habitat values for threatened species.

The final layout of the solar panels and associated management zones within the Project Area has not been finalised. Detailed design will ensure that there are no significant impacts to MNES and will be determined based on environmental and engineering constraints. In particular, Edify Energy will ensure that the final layout and associated asset protection management zones will:

- impact no more than 15.8 ha of koala habitat (with a focus on low quality areas), and

- provide for a 30 m buffer from any *E. raveretiana* individuals.

In addition to avoiding and minimising direct impacts to MNES habitat and occurrences, the range of potential indirect impacts have also been considered as part of the assessment. A suite of mitigation and management measures will be implemented to address each of these potential indirect impacts and ensure significant impacts to MNES are avoided. These measures, with associated aims, success criteria, responsibilities and timeframes, are outlined in the Solar Farm Environmental Management Plan (EMP). The EMP will be implemented as part of the proposed action.

MEASURES TO MANAGE POTENTIAL INDIRECT IMPACTS TO KOALA

The following points outline the key measures that will be undertaken to manage potential indirect impacts to Koala:

- Traffic control measures through the Traffic Management Plan – Whitsunday PV Power Plant (Bouygues Construction 2016). These will include specific measures in relation to: speed restrictions (max 20km/hr on site), site inductions, and signage.

- Measures to ensure that feral predators are not encouraged by activities within the Project Area. This will include appropriate management of site waste.

- Implementation of the Bushfire Management Plan (RPS 2016b) to ensure that the risk of bushfire is minimised and fuel loads are managed to reduce the rate of spread and intensity of bushfires. Asset protection zones are incorporated within the habitat impact limit.

- Retention of all vegetation outside the areas to be developed.

- Use of fencing that enables safe movement of Koalas across the Project Area.

- All clearing will require a licensed and qualified spotter-catcher to be present to ensure koalas are not present and are not utilising the habitat being cleared.

- If any koalas are identified within an area to be cleared, no clearing activities will be undertaken prior to an assessment by a qualified ecologist.

In addition to focusing development on low quality areas and minimising impacts to Koala habitat, Edify Energy will also undertake restoration works to improve high quality habitat along Crush Creek. This area supports at least two Koala food trees, provides for Koala movement across through the landscape and may also be a drought refuge for the species.

Restoration works will involve:

- Excluding development and stock from Crush Creek. Fencing will be installed along both sides of the creek to provide for a suitable buffer from the high bank (noting that the top wire is to be plain wire not barbed to minimise the potential for fauna such as bats and gliders becoming entrapped)

- Excluding stock from Crush Creek by installing fencing along the both sides of the creek at least 30 m from the high bank (noting that the top wire is to be plain wire not barbed to minimise the potential for fauna such as bats and gliders becoming entrapped)

- Creating off-stream watering points (if required)

- Installing gates to periodically allow pulse grazing if required for fire management purposes

- Encouraging natural regeneration of eucalypt species within this stock excluded buffer. This is a critical ecosystem process that is currently heavily restricted due to grazing

- Undertaking and maintaining a weed management program that targets the various high threat woody weeds such as Rubber Vine that currently threaten the ecological function and longevity of the fringing woodland community.

- Setting-up monitoring plots through which to monitor the recovery of natural regeneration and success of weed management activities.

The area of riparian vegetation along Crush Creek is approximately 46.5 ha but the area that occurs in the zone of 30 m from the high banks is likely to be larger. As the exact location of the high banks is not know the precise area can not be calculated.

These actions will provide a long term benefit to the Koala by addressing existing threats to areas of better habitat in the landscape and improving long term viability.

MEASURES TO MANAGE POTENTIAL INDIRECT IMPACTS TO BLACK IRONBOX

The following points outline the key measures that will be undertaken to manage potential indirect impacts to Black Ironbox:

- Weed control measures:

* Any felled non-native vegetation will be disposed of at an appropriate waste disposal facility or mulched and reused provided that no seed bearing material is present.

* Vegetation and soil disturbance will be minimised to reduce rate of weed invasion.

* Areas of bare ground will be minimised with mulch and revegetation to reduce or prevent rate of weed invasion.

* Stockpiles of native vegetation will be inspected for weeds species and weeds removed prior to export off site/mulching.

* Prior to entering or leaving the site, all vehicles and equipment involved in clearing and weed removal works will be cleaned down to remove soil and plant material to prevent spreading of soil borne disease and weed seeds or plant material.

* If water is used to clean equipment and vehicles the wastewater will be treated by physical or chemical means to ensure weeds and declared plants are not discharged from the site. These clean down areas will be bunded.

* Materials (e.g. gravel and sand) brought on to site will be obtained from weed-free sources.

- Sediment and erosion:

* Implementation of an Erosion and Sediment Control Plan (ESCP) to manage the site during the construction and operational stages.

* Ground disturbance and vegetation clearing will be limited to the minimum extent necessary for safe construction of solar modules.

* Topsoil stockpiles will be protected from sediment runoff by a catch drain constructed along uphill sides and a suitable silt fence/sediment trap constructed on the downhill sides.

* Erosion and sediment control structures will be installed and maintained where necessary.

* In the event of rain and wet soils, movement of vehicles and equipment will be minimised or avoided.

- Increased risk of fire:

* The Bushfire Management Plan (RPS 2016b) will be implemented to ensure that the risk of bushfire is minimised and fuel loads are managed to reduce the rate of spread and intensity of bushfires.

* Bushfire Asset Protection Zones will be maintained outside of 30m from Black Ironbox habitat.

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.

As discussed in Section 2 of this referral, there are three MNES relevant to the proposed action. These include the Koala, Squatter Pigeon, and Black Ironbox.

No significant impacts to any of these MNES will occur as a result of the proposed action. The following specific outcomes will be delivered:

- Koala: Limited direct impacts to poor quality habitat for the species. Management of potential indirect impacts to the species. Conservation program to restore habitat within Crush Creek.

- Squatter Pigeon: Minor, temporary disturbance to an area of habitat that is not considered important to the species. No long term disruption to the species' use of the Project Area.

- Black Ironbox: No direct impacts to known occurrences and associated habitat. Minimum 30 m buffer from the edge of the impact areas to known occurrences. Management of potential

indirect impacts. Conservation program within Crush Creek will provide associated benefits for the species.

There is a high level of confidence in the ability to deliver these outcomes for the following reasons:

1. The proposed action involves a set of commitments and design measures to avoid significant impacts to MNES habitat.

2. A comprehensive suite of mitigation and management measures are proposed to address potential indirect impacts to MNES habitat adjacent to development. The types of potential indirect impacts that may be relevant are well understood and the proposed measures are standard, best practice.

3. Understanding of MNES values within the Project Area and surrounds is based on two survey events by qualified ecologists with experience conducting ecological surveys in the area. The second survey event was very recent and targeted to the key MNES issues relevant to the area.

4. The proponent has a strong commitment to good environmental practice. This is demonstrated by their willingness to define and refine the development to specifically avoid significant impacts to MNES, despite notable compromises to development outcomes and efficiencies.

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.

The proposed action has been specifically designed to avoid significant impacts to MNES. Direct impacts have been avoided and minimised, and a suite of measures are proposed to mitigate and manage indirect impacts.

In particular for Koala, direct impacts to Koala habitat will be limited to no more than 15.8 ha with a focus on non-habitat areas and low quality habitat. Impacts to high quality areas will generally be avoided and a conservation program will be applied to improve the condition of Crush Creek which is the key location for the species within the Project Area. Potential indirect impacts will be addressed and managed.

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.

The Proponent is an Australian renewable energy development and investment company. Its primary business is the development and delivery of renewable energy facilities, including the solar farm at this location.

The Proponent company has developed an EMP (RPS 2016b) to manage environmental issues at the project site.

The Proponent takes its environmental obligations seriously, rigorously assessing its environmental impacts and executing with integrity, ideally improving biodiversity outcomes in the process.

The founder and chief executive of the Proponent led the development and delivery of 27 utility scale solar farms in the UK as part of the business Low Carbon (lowcarbon.com) which he co-founded.

The Proponent has never been convicted, fined or prosecuted of any environmental breach. The Proponent and its development partner, Solar Choice, have shown great leadership in responsible environmental management in the development of this project and gaining the appropriate approvals.

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.

Not applicable

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.

The Proponent's business is focused on improving environmental outcomes through the generation of electricity from renewable sources, primarily solar power. It is determined to deliver the solar farm at this location and has prepared extensively for this project by working through the local, state and federal planning framework.

The planning framework applies to the action by way of allowing the action to proceed, with all appropriate approvals and consents being gained.

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?

Yes

6.4.1 EPBC Act No and/or Name of Proposal.

Edify Energy - Gannawarra Solar Farm Development (2016/7807)

Edify Energy - Solar Farm Development, north-west of Collinsville, Queensland (2016/7824)

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
Brooker, M.I.A. and Kleinig, D.A., (2008). Field Guide to Eucalypts: Northern Australia, Field Guide to Eucalypts. Bloomings Books, Melbourne.	High. Published reference material.	N/A
Department of the Environment (DoE) (2013) Matters of National Environmental Significance Significant impact guidelines 1.1 - Environment Protection and Biodiversity Conservation Act 1999. Commonwealth of Australia.	High. Australian Government guidance.	N/A
Department of the Environment (2014) EPBC Act referral guidelines for the vulnerable Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory. Commonwealth of Australia, Canberra. Available from: http://www.environment.gov.au/biodiversity/threatened/publications/epbc-act-referral-guidelines-vulnerable-Koala	High. Australian Government guidance.	Applicability to project locality given habitat preference for Koalas in the region.
Department of the Environment (DoE) (2015). Red Hill Mining Project EPBC Act Approval (EPBC 2013/6865).	High. Australian Government EPBC approval.	N/A
Department of the Environment and Energy (DoEE) (2017) Species Profile and Threats Database. Available from: http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl.	High. Australian Government reference material.	General species advice. Potentially requires more detailed and current information to be considered.

Reference Source	Reliability	Uncertainties
Accessed March 2017		
Ecological Survey & Management (ES&M) (2017). Strathmore Solar Farm Project Stage 2 Ecological Baseline Report. Report for Edify Energy.	High. Recent detailed ecological surveys conducted across the Project Area.	Appropriate level of detail and information for the referral. Limitations discussed in Section 2.4 of the report.
Higgins, P.J. & S.J.J.F. Davies (eds) (1996) Handbook of Australian, New Zealand and Antarctic Birds. Oxford University Press, Melbourne	High. Published reference material.	N/A
Martin, R. and Handrasyde, K. (1999), The Koala: Natural History, Conservation and Management, UNSW Press Australian natural history series, University of New South Wales Press Ltd, Sydney	High. Published reference material.	N/A
Menkhorst and Knight (2011). A field guide to the Mammals of Australia	High. Published reference material.	N/A
RPS (2016a) Solar Farm – Preliminary Ecological Assessment. Report for Edify Energy.	High. Recent ecological assessment conducted across the entire development consent area.	Not designed to provide detailed ecological survey results.
RPS (2016b) Solar Farm – Environmental Management Plan. Report for Edify Energy.	High. Ongoing management plan for the site.	Limited uncertainties. Will be continually informed by monitoring.
RPS (2016c) Solar Farm – Ecological Values Assessment. Report for Edify Energy.	High. Recent detailed ecological surveys conducted across the Stage 1 area.	Appropriate level of detail and information for the Stage 1 referral.
RPS (2016d) Solar Farm – Bushfire Management Plan. Report for Edify Energy.	High. Ongoing management plan for the site.	Limited uncertainties. Will be continually informed by monitoring.
Threatened Species Scientific Committee (TSSC) (2008). Commonwealth Conservation Advice on Eucalyptus raveretiana. Department of the Environment, Water, Heritage and the Arts.	High. TSSC species advice.	N/A
Threatened Species Scientific Committee (TSSC) (2015). Approved Conservation Advice for Geophaps scripta scripta	High. TSSC species advice.	N/A

Reference Source	Reliability	Uncertainties
(Squatter Pigeon (southern))		

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?

No alternatives to development at the site were considered. A range of alternative development scenarios were considered with a view to avoiding significant impacts on MNES (see Section 4).

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

Head Engineering & Technical

9.2.2 First Name

Ian

9.2.3 Last Name

Christmas

9.2.4 E-mail

ian.christmas@edifyenergy.com

9.2.5 Postal Address

Level 6

140 Creek St
Brisbane QLD 4000
Australia

9.2.6 ABN/ACN

ABN

85606684995 - EDIFY ENERGY PTY. LTD.

9.2.7 Organisation Telephone

0447 347 974

9.2.8 Organisation E-mail

ian.christmas@edifyenergy.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

Declaration

I, IAN CHRISTMAS, 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: 14/3/2017

I, IAN CHRISTMAS, 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: 14/3/2017

9.3 Is the Proposed Designated Proponent an Organisation or Individual?

Organisation

9.5 Organisation

9.5.1 Job Title

Head Engineering & Technical

9.5.2 First Name

Ian

9.5.3 Last Name

Christmas

9.5.4 E-mail

ian.christmas@edifyenergy.com

9.5.5 Postal Address

Level 6

140 Creek St
Brisbane QLD 4000
Australia

9.5.6 ABN/ACN

ABN

85606684995 - EDIFY ENERGY PTY. LTD.

9.5.7 Organisation Telephone

0447 347 974

9.5.8 Organisation E-mail

ian.christmas@edifyenergy.com

Declaration

I, IAN CHRISTMAS, 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: 14/3/2017

9.6 Is the Referring Party an Organisation or Individual?

Organisation

9.8 Organisation

9.8.1 Job Title

Director

9.8.2 First Name

Peter

9.8.3 Last Name

Hemphill

9.8.4 E-mail

peter@openlines.com.au

9.8.5 Postal Address

GPO Box 1321
Canberra ACT 2601
Australia

9.8.6 ABN/ACN

ABN

90150901965 - Open Lines Consulting Pty Ltd

9.8.7 Organisation Telephone

0414709744

9.8.8 Organisation E-mail

peter@openlines.com.au

Declaration

I, PETER HEMPHILL, 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: Peter Hemphill Date: 14/3/2017

Appendix A - Attachments

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

1. attachment_d_-_gis_file_of_project_area.zip
2. attachment_a2_-_wrc_development_approval.pdf
3. attachment_a1_-_wrc_development_approval.pdf
4. attachment_a3_-_wrc_development_approval.pdf
5. attachment_c_-_detailed_project_description.pdf
6. attachment_b_-_ecological_baseline_report.pdf
7. attachment_e_-_analysis_of_potenital_impacts.pdf