

# Kondinin Wind and Solar Farm Development Approval Supporting Documentation

Planning Compliance Report



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## Planning Compliance Report

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## Quality Information

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Reviewed by Katrina O'Mara and Rachel Foster

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			Name/Position	Signature
A	04-Sep-2017	Initial draft for internal review	Katrina O'Mara Associate Director - Environment	
B	13-Sept-2017	Revised draft	Katrina O'Mara Associate Director - Environment	
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## 1.0 Introduction

This planning compliance report has been prepared with the intent to assess the anticipated planning requirements in support of the Kondinin Wind and Solar Farm (Development) proposal, comprising of up to 46 wind turbines and up to 125 ha photo voltaic (PV) solar array.

The report considers, and provides evidence of, meeting the main planning and environmental legislation and guidance requirements applicable to this type of development in the Shire of Kondinin. This document identifies the planning framework which governs developments in Western Australia and examines whether the project has met the criteria at Federal, State and Local perspectives.

This report provides a brief project description of the proposed development and a description of the existing environment through presentation of:

- Significant site features
- Site characteristics
- Topography and contours
- Existing land uses
- Land tenure

The current planning framework considerations are then presented including:

- Federal planning and environmental frameworks
- State planning framework considerations (including noise, landscape and visual assessment requirements specifically related to wind farms)
- Regional planning framework considerations and
- Local planning framework considerations



## 2.0 Project description

Kondinin Energy's Development Application comprises the installation of up to 46 wind turbines, an accompanying 125 hectares (ha) of solar farm, energy storage and all associated infrastructure at a site 5 km north east of Kondinin, Western Australia in a development to be known as the Kondinin Wind and Solar Farm (refer to Figure 1 for site context map). The turbines will be of the horizontal axis type, with a rotor consisting of three blades with a maximum blade length of up to 90 m and a maximum hub height of up to 150 m. Blade length chosen and wind turbine hub height will be configured so that the tip height does not exceed 220 m. The final make and model of the turbines which comprise the wind farm is not yet finalised and would be subject commercial and procurement processes following approval of the project. A summary of the key aspects of the project are provided in Table 1.

The project will have a number of ancillary features, including associated electricity transformers, underground cabling, access tracks, crane hardstands, a substation compound including a metering building, site office and workshop and a communications mast, a transmission system connecting to the grid, and up to four permanent, free-standing wind monitoring masts. Some areas will be designated exclusion zones, where no turbines or associated infrastructure will be located and existing vegetation will be retained where possible.

**Table 1 Project aspects used to complete the Development Application**

Factor	Project aspect
<b>Wind Farm</b>	
Siting	Approximately 5 km north-east of Kondinin as shown in Figure 1 over a site which is located between the Notting-Karlgarin Road on the south, Bending East Road on the north, within agricultural properties located east of the grain rail line between Kondinin and Narembeen and to the west of the Growden/Nareembeen Roads.
Site Area	The Project will be established encompassing parts of 19 freehold rural lots comprising approximately 3,105 hectares (ha), referred to as the Project Area.
Layout	As represented in Figure 1
Design of turbines	Three bladed, horizontal axis wind turbine typical of that illustrated in Figure 2
Turbine size (maximum)	Turbine tip height up to 220 m Hub height of turbine up to 150 m Rotor blade length up to 90 m (180 m in diameter)
Turbine rotation speed	Typical rotation speeds for 4.5 megawatt (MW) sized turbines is approximately 15 – 20 rotations per minute, dependent on the wind speed and the turbine specifications, including the cut-in and cut-out speeds of the turbine which sets the minimum and maximum rotation speeds.
Number of turbines	Up to 46
Colour of turbines, including reflectivity of tower and rotating blades	The turbines will be coloured light grey or white with a semi-matt finish to reduce their contrast with the background sky and minimise reflections. The turbines will be uniform in colour and will not contain any prominent company logos.
<b>Solar Farm</b>	
Siting	Approximately 5 km north north-east of Kondinin as shown in Figure 1 over a site which is located between Notting-Karlgarin Road and the grain rail line between Kondinin and Narembeen on the north west.
Layout farm	As represented in Figure 1 with panels facing to the north. Power conversion stations, including central inverters, step up transformers and

Factor	Project aspect
	switch gear, housed in containers or container skip pads of approximately 12 metres in length.
Design and size	<p>The utility-scale solar PV plant is located on Lot 16621 with a total footprint of up to 125 ha. The solar panels are mounted in rows on either fixed tilt or horizontal tracking systems.</p> <ul style="list-style-type: none"> <li>Solar panels, installed in regular arrays, up to 4 m in height;</li> <li>Each solar panel will be fixed to a metal mounting structure. The mounting structure will be piled or screwed into the ground without the need for any concrete.</li> </ul> <p>Final layout will be completed at a later date during detailed design but expected to be similar to other solar farm projects in Western Australia.</p>
Colour of panels	<p>Colour of the cells is expected to be a deep dark greyish colour contained within an aluminium (silver coloured) module frame. Close up, small areas or lines of silver coloured metals representing gaps between the cells and the electrical circuit may be visible.</p> <p>Rear of the panels is expected to be light silver coloured.</p>
Project Wide	
Access roads	Notting-Karlgarin Road (existing public road)
Ancillary features	<ul style="list-style-type: none"> <li>Up to 46 wind turbines and hardstand infrastructure (approx. 100 m x 50 m, 0.5 ha average area);</li> <li>Up to four temporary wind monitoring towers;</li> <li>Up to four permanent wind monitoring towers;</li> <li>Up to two new substations (up to 4.5 ha);</li> <li>Up to two permanent site offices, workshops and warehouses (up to 5 ha);</li> <li>Up to two small office, lunch room, amenities and ablutions;</li> <li>Up to 43 km of gravel capped roads;</li> <li>Up to four new permanent site entries;</li> <li>Underground and above ground power and communication cables;</li> <li>Up to 10 km of medium/high voltage overhead powerlines;</li> <li>New fencing with grids and gates;</li> <li>Up to four laydown and stockpile areas (up to 3.3 ha);</li> <li>Up to three temporary construction compounds (up to 4 ha);</li> <li>Temporary concrete batching plant and storage facilities;</li> <li>Energy storage infrastructure;</li> <li>Up to 125 hectares of Solar farm infrastructure; and</li> <li>Power conversion stations (the PCS) within the Solar Farm, which include central inverters, step up transformers and switchgear in 40 feet (approximately 12 m) containers or container skid pads</li> </ul>
Extent of clearing required (vegetation)	No significant clearing of native vegetation required.
Construction procedures	<p>Construction activities are expected to include:</p> <ul style="list-style-type: none"> <li>new or upgrade of existing access roads from the Notting-Karlgarin Road to the project area</li> <li>earthworks and preparation of reinforced concrete turbine foundations and solar array foundations</li> <li>delivery of the solar array and turbine components to site and unloaded to a location adjacent to the prepared foundations, anticipated to be on land already cleared for agricultural use</li> <li>assembly of solar array and turbine components using cranes</li> <li>installation of underground electrical services between array, turbines, the site substation and the site substation to the network</li> <li>Construction of small building to meet the project's operations requirement.</li> </ul>

Factor	Project aspect
	Some temporary compounds and laydown areas during construction and up to four temporary wind monitoring masts, on top of the four permanent wind monitoring masts will also be installed.



## LEGEND

- Wind turbine
- Solar Farm
- Substation
- Site offices, workshops warehouses
- Temporary construction compounds
- Laydown and stockpile areas
- Wind turbine hardstanding
- Access Roads
- Site Entrance
- Overhead Powerline
- Wind monitoring towers
- Project Area Boundary
- Lot Boundaries
- Existing Western Power 132kV line
- Existing Western Power 220kV line

NOTE: Figure shows Project Area within which there is:

Up to 46 wind turbines and hardstand infrastructure; Up to 4 temporary wind monitoring towers; Up to 4 permanent wind monitoring towers; Up to 2 new substations; Up to 2 permanent site offices, workshops and warehouses; Up to 2 small office, lunch room, amenities and ablutions; Up to 43 km of gravel capped roads; Up to 4 new permanent site entries; Underground and above ground power and communication cables; Up to 10 km of medium/high voltage overhead powerlines; New fencing with grids and gates; Up to 4 laydown and stockpile areas; Up to 3 temporary construction compounds; Temporary concrete batching plant and storage facilities; Energy storage infrastructure; Up to 125 Hectares of Solar farm infrastructure; and Power conversion stations (the PCS) within the Solar Farm, which include central inverters, step up transformers and switchgear in 40 ft (approximately 12 m) containers or container skid pads.

Scale when printed at A3

1:37313

## FIGURE 1

**All Project Infrastructure  
(satellite)  
Kondinin Wind and Solar  
Farm**

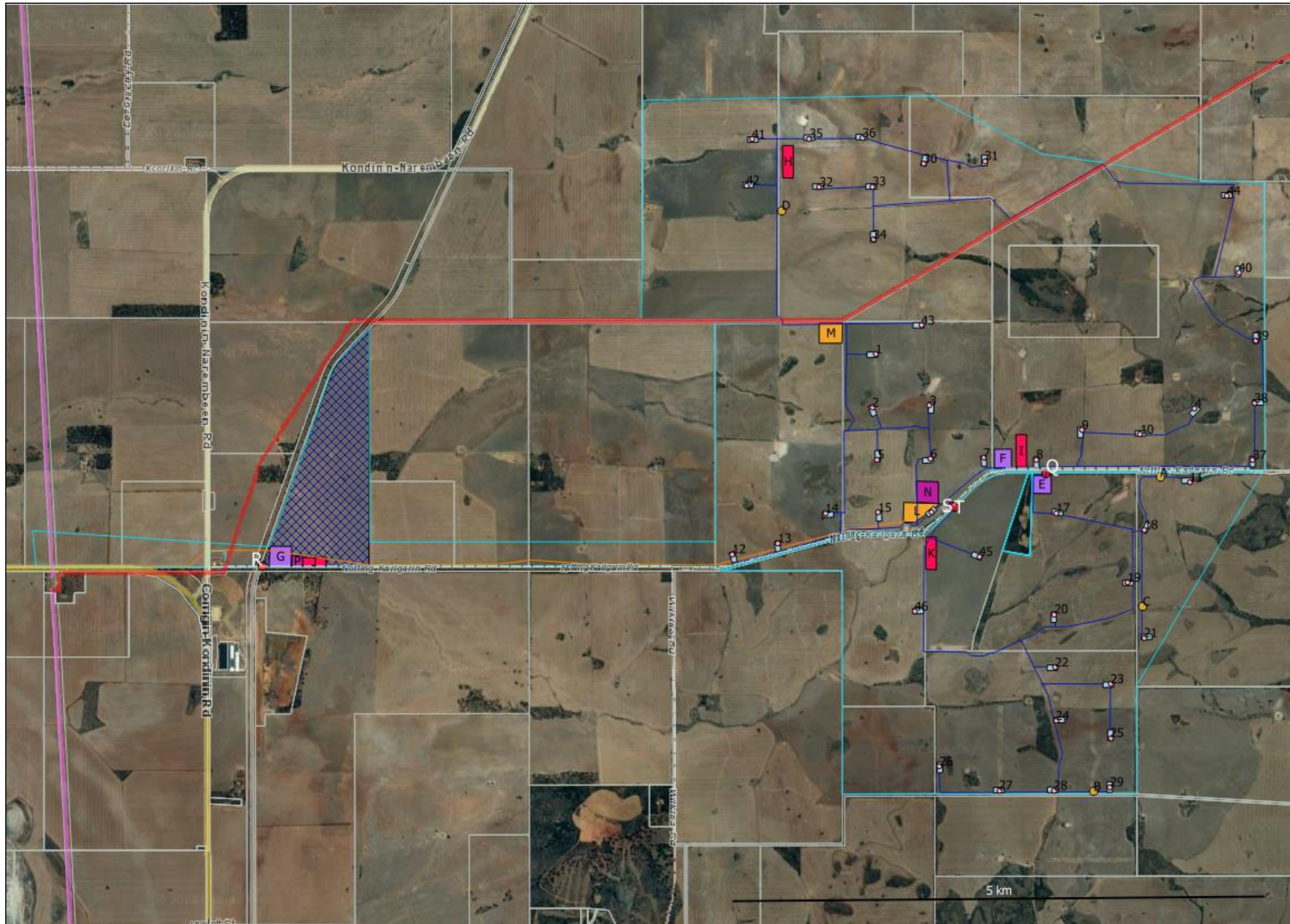






Figure 2 Wind Turbine Assumed Dimensions (Lacour, 2017)

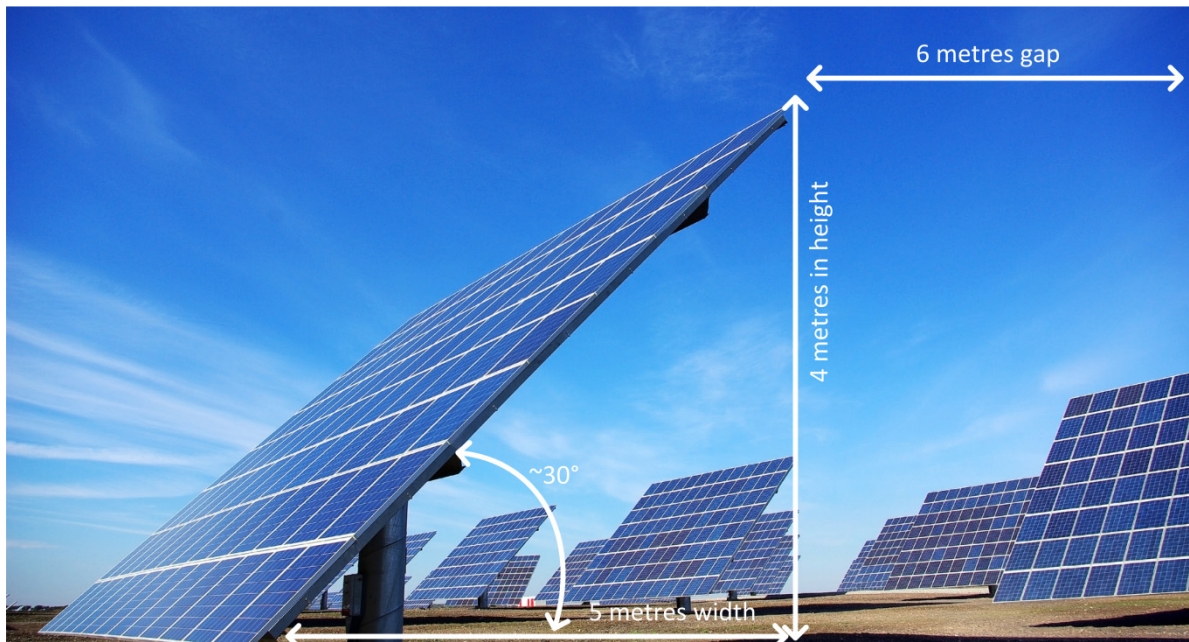


Figure 3 Photovoltaic Array Assumed Dimensions (stock image)

## 3.0 Existing environment

### 3.1 Significant features

Within the site of the proposed Development there are no significant landscape features. The site is predominantly cleared agricultural land, with much of the land having been cleared more than 100 years ago. On the western side of the site is the Kondinin - Narembeen Road and rail line, part of the grain rail (tier 3) network between Merredin and Narrogin, which is currently not in operation.

### 3.2 Site characteristics

The site of the proposed Development is within pastoral fields. Expanses of cereal crops and wide, open views are the dominant site characteristics of the area proposed for the solar and wind farm. The landscape is predominantly cleared for grain cropping and sheep / pastoral activities but remnant pockets of vegetation within the farm land and roadside vegetation Figure 5 are present. Isolated, broccoli-shaped, trees also exist, generally along the outer edges of the agricultural fields (Figure 4).



Figure 4 Agricultural plot surrounded by vegetation corridors





Figure 5 Roadside vegetation

### 3.3 Topography and contours

Sweeping vistas extend across broad, shallow valleys formed by ancient drainage corridors with the horizon punctuated by distant, cresting hills and granite outcrops. The valley systems of this area are almost indistinguishable, no longer exhibiting the perennial watercourses which shaped this ancient landscape.

### 3.4 Existing land uses

The sites proposed for the Development (represented by the orange line) for use by both the solar and wind farm components of the development are currently used for agricultural grain crop production and are zoned Rural in the Shire of Kondinin Town Planning Scheme No. 1 as shown in Figure 6.

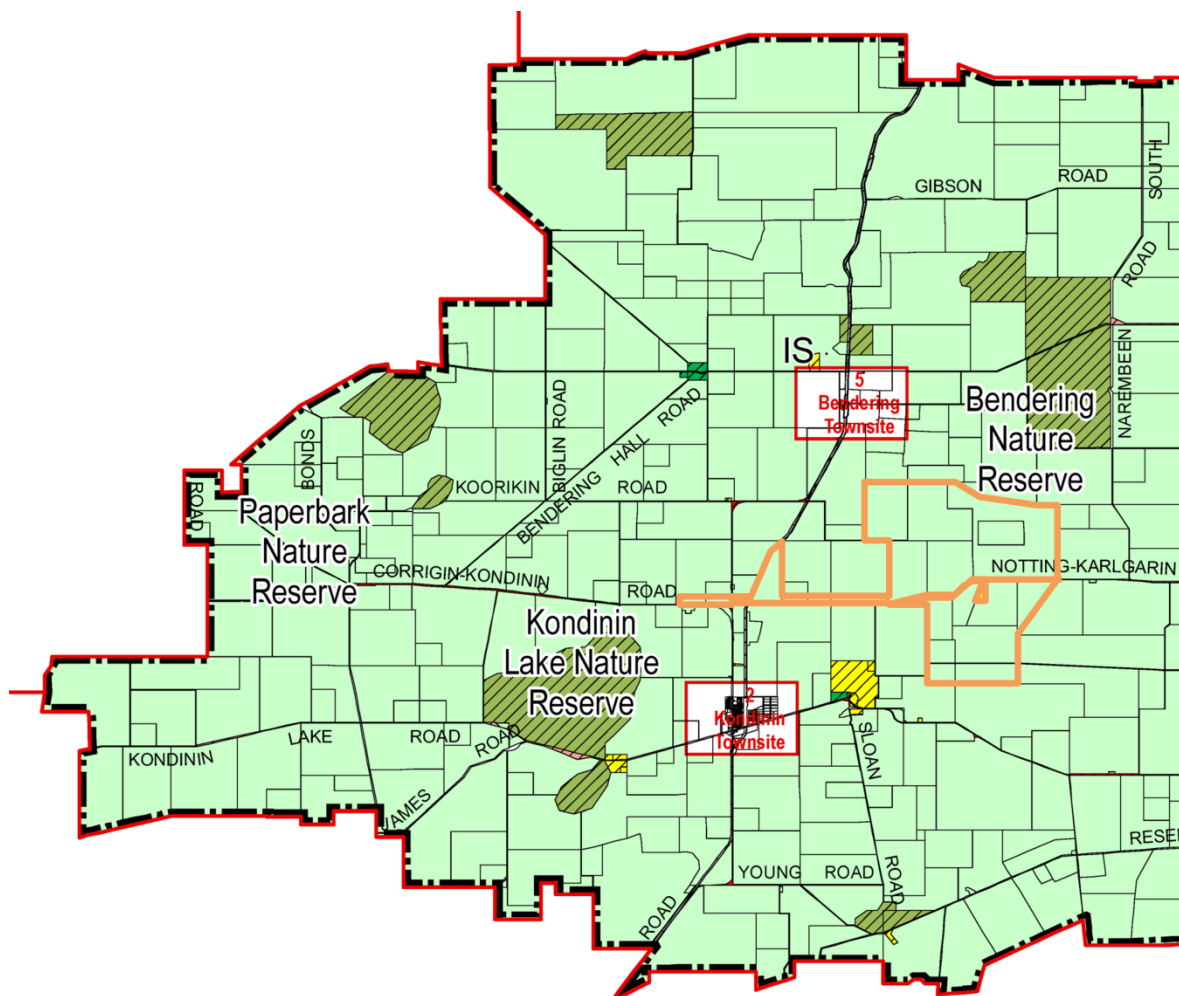


Figure 6 Shire of Kondinin Town Planning Scheme No. 1 (Shire of Kondinin, 2011)

### 3.5 Land tenure

The land tenure of the Project Area is freehold. Exceptions and other rights to this are:

- Arterial and minor road reserves throughout the Project Area; and
- Western Power easements intersecting the Project Area through multiple landowner lots.

When approved, Kondinin Energy will negotiate with relevant freehold land owners for any required easements, land leases or acquisitions and/or the payment of any agreed consideration or compensation. This includes lease agreements, of at least 25 years length, with all freehold landowners hosting wind turbines and solar farm infrastructure as part of the Project.

The lease agreements will enable the landowners will continue to use their land at they see fit for rural and agricultural purposes, in accordance with the approved planning uses for their land, except for the small areas where Project infrastructure is located.

## 4.0 Planning framework

### 4.1 Federal

#### 4.1.1 Renewable Energy (Electricity) Act 2000

The *Renewable Energy (Electricity) Act* was established to facilitate a scheme to encourage additional electricity generation from renewable energy sources as a mechanism to assist in reducing Australia's greenhouse gas emissions in the electricity generation sector. The Mandatory Renewable Energy Target Scheme (MRET) is a key aspect of the Act and requires electricity wholesalers to source a portion of the electricity sold from renewable energy sources.

#### Compliance Evaluation

New renewable energy proposals such as the proposed Development are an important in achieving the MRET.

#### 4.1.2 Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) is administered by the Commonwealth Department of the Environment and Energy (DoEE). Under the EPBC Act, if the Minister determines that an action is a 'controlled action' which would have, or is likely to have, a significant impact on a Matter of National Environmental Significance (MNES) or Commonwealth land, then the action may not be undertaken without prior approval of the Minister. Actions which adversely affect these matters may be deemed to be a 'controlled action' under the Act.

In accordance with Commonwealth legislation, the EPBC Act provides a list of MNESs, which includes significant fauna, flora and communities. All MNESs are listed under the EPBC Act. These include:

- Listed Threatened Species and Threatened Ecological Communities
- Migratory species protected under international agreements
- Ramsar wetlands of international importance
- The Commonwealth marine environment
- World Heritage properties
- National Heritage places
- Great Barrier Reef Marine Park
- A water resource, in relation to coal seam gas development and large coal mining development
- Nuclear actions.

Threatened Ecological Communities (TECs) are naturally occurring biological assemblages which occur in a particular type of habitat and which may be subject to processes that threaten to destroy or significantly modify the assemblage across its range. TECs are listed by both state and commonwealth legislation.

Vegetation communities in Western Australia are described as TECs if they have been endorsed by the Western Australian Minister for Environment following recommendations made by the Threatened Species Scientific Committee.

The Department of Biodiversity, Conservation and Attractions (DBCA) maintains a database of state-listed TECs which is available for online searches via its website. Possible TECs which do not meet survey criteria or are not adequately defined are listed as Priority Ecological Communities (PECs) under Priorities 1, 2 and 3. Ecological communities which are adequately known and are rare but not threatened, or meet criteria for Near Threatened status, or that have been recently removed from the threatened list, are placed in Priority 4. Conservation-dependent communities are classified as Priority 5.

The DBCA requires that all Priority and Threatened ecological communities are considered during environmental impact assessments and clearing permit applications.



There is currently no formal protection afforded to TECs or PECs listed at the state level.

If an action is likely to have a significant impact on an MNES this action must be referred to the Minister for the Environment for a decision on whether assessment and approval is required under the EPBC Act.

### Compliance evaluation

Impacts to potential conservation species are discussed in section 5.4 of the *Flora and Fauna Assessment (FFA) (SW Environmental 2017)*.

#### Threatened Ecological Communities

The FFA notes that the project will not require the clearing of any TEC.

Two points where the proposed transmission line easement (30 metres) may cross areas of mapped TEC and pruning of trees will be required at these locations have been identified and are addressed in Table 8 of the Kondinin Wind and Solar Farm Development Application Report (DAR).

#### Conservation Significant Flora

The FFA notes that for the infrastructure locations proposed, no conservation significant flora will be directly impacted by clearing. Although several populations of Priority flora were located across the site, none of these is within 20 m of the proposed infrastructure location and should be able to be avoided.

#### Conservation Significant Fauna

The FFA notes that eight conservation significant fauna were identified as potentially occurring, or having suitable habitat, within the project area.

Although clearing impacts are unlikely to impact the fauna above considering the small amount of clearing across the entire project area, the potential for impact to Rainbow Bee-eaters and Carnaby's Black Cockatoos was identified, on the basis that these species are endangered, rather than the likelihood of collision, which was assessed to be rare. The Rainbow Bee-eater was found to be a low risk species. However, a qualitative risk assessment found the Carnaby's Black Cockatoo to be a moderate risk species, although the likelihood of collision was considered rare as individuals would fly below the rotor swept area.

Based on Table 5-1 of the FFA, the proposal is not likely to trigger the need for referral. However, Kondinin Energy commits to liaising with the Commonwealth regulator to seek advice as to whether a referral should be submitted.

#### 4.1.3 Airports Act 1996

The Development is located in proximity to the Kondinin Airstrip which is operated by the Shire of Kondinin. As a result, the *National Airports Safeguarding Framework: Managing the Risk to Aviation Safety of Wind Turbine Installations (Wind Farms)/Wind Monitoring Towers* and Civil Aviation Safety Authority documents, including the *Manual of Standards (MOS) -139 and Advisory Circular AC139-18(0) Obstacle Marking and Lighting of Wind Farms* were considered.

### Compliance evaluation

An assessment by Aviation Projects reviewed potential impacts of the Project on aviation safety with respect to relevant requirements of air safety regulations and procedures and not identified any risks which are unable to be mitigated.

Based on the proposed layout comprising of up to 46 wind turbines, with an overall turbine blade tip height limit of 220 m the blade tip elevation of the highest turbine, Aviation Projects identified that the project will not exceed 609 m Australian Height Datum and:

- will not penetrate any Obstacle Limitation Surfaces;
- will not penetrate any PANS-OPS surfaces;
- may have an impact on aircraft operations at the nearby aeroplane landing area (ALA);
- will not have an impact on nearby designated air routes;
- however, eight turbine positions will have an impact on the grid lowest safe altitude

## Compliance evaluation

- will not have an impact on prescribed airspace;
- is wholly contained within Class G airspace; and
- is outside the clearance zones associated with aviation navigation aids and communication facilities.

### Operations at the nearby aircraft landing area

Aviation Projects have identified mitigation measures including changes to the local traffic procedures including the use of only right hand circuits for landing and take off at the Airstrip and Kondinin Energy have requested Shire of Kondinin, as Airstrip owner, consider this and have offered to cover costs to publish the procedure.

The Shire of Kondinin, as the owner/operator of the aerodrome, would apply to the Civil Aviation Safety Authority (via the regional office) for approval to have Kondinin Aerodrome included in Aeronautical Information Publication (ERSA) as a 'shaded entry' so that a local traffic regulation requiring right hand circuits on runway 18 can be published. The application would be accompanied by the Aviation Impact Assessment being prepared for the proposed wind farm, to clearly establish the context within which the recommendation to nominate right hand circuits has been made:

- CASA would then review the application and provide to Shire of Kondinin an estimate of costs to undertake the assessment;
- upon payment of the estimated fee, CASA would then undertake the assessment, and if the application is successful, issue an instrument of approval; and
- Airservices Australia would arrange for inclusion of Kondinin Aerodrome in AIP ERSA and note the local traffic regulation in the applicable entry.

### Lowest safe altitudes

Eight wind turbines at 220m high in the existing design penetrate the lowest safe altitude by up to 30m. To mitigate this:

- 220m high wind turbines can be sited on land 559m Australian Height Datum (AHD) so that they do not penetrate the lowest safe altitude.
- Wind turbines located on land above 559m AHD, the potential for their height to be reduced by up to 30m to be under the lowest safe altitude if possible.
- Alternatively, the Lowest safe altitudes (LSALTs) can request to be changed and published in an Aeronautical Information Package.

Aviation Projects suggested that a planning condition can be imposed to manage this, to state that wind turbine tip height to be no higher than 579m, unless Lowest safe altitudes (LSALTs) published in an Aeronautical Information Package is increased by a sufficient height to ensure 1000ft clearance between wind turbine tips and the LSALTs.

### Lighting

As Kondinin ALA is known to have night operations, including services provided by the Royal Flying Doctor Service. Aviation Projects has recommended that obstacle lighting, consisting of two flashing red medium intensity, should be installed on the hubs of sufficient number of individual wind turbines to indicate the general definition and extent of the wind farm, with intervals between lit turbines not exceeding 900 m.

## 4.2 State

### 4.2.1 State Planning Strategy 2050

The State Planning Strategy provides a context and basis for land use planning for Western Australia through to the year 2050 using a directional, rather than directive approach. It is designed to guide and inform the regional and local planning plans, schemes and strategies. Renewable energy initiatives are also specifically referenced in the strategy across a number of areas, including in the Energy

section of Physical Infrastructure (Section 2 of the strategy), noting that investment will encourage the use of renewables in the energy mix.

The Strategy's approach identifies an aspiration to promote integration of electricity sourced from renewable energy sources into the state's electricity grids, including the South West Interconnected System.

#### Compliance evaluation

The proposed Development is also directly aligned with the direction of the State Planning Strategy.

#### 4.2.2 State Planning Policy No. 2 – Environment and Natural Resources Policy (SPP2)

This planning policy is relevant to the conservation and protection of environmental assets and biodiversity as well as sustainable management of natural resources across WA. Its key objectives are to:

- Integrate environment and natural resource management within broader land use planning and decision making.
- Protect, conserve and enhance the natural environment.
- Promote and assist in the wise and sustainable use and management of natural resources.

SPP2 covers a wide range of policy measures, including both General Measures and Landscape Measures. This includes guidance which strategies, schemes and decisions potentially affecting locations with visual, Aboriginal and cultural values should seek to protect. As part of consideration of Landscape Measures, it recommends assessment of the landscape, cultural and visual impact for proposed developments where there is the potential to have an impact on sensitive landscapes.

#### Compliance evaluation

With relevance to renewable energy developments, SPP2 indicates that planning and decision-making should *'Support the use of alternative energy generation, including renewable energy, where appropriate.'*

The proposed Development comprises both wind and solar renewable power generation and directly accords with SPP2. The siting has been achieved through consideration of ecological factors and the conservation of biodiversity with regard to the footprint, layout and distribution of the project's infrastructure.

Landscape and visual impacts are discussed in **section 4.2.11**.

#### 4.2.3 State Planning Policy No. 2.5 – Agricultural and Rural Land Use Planning

This planning policy focuses on the appropriate zoning of highly productive agricultural land throughout WA. Its key objectives are to:

- Protect agricultural land resources wherever possible by:
  - discouraging land uses unrelated to agriculture from locating on agricultural land;
  - minimising the ad-hoc fragmentation of rural land; and
  - improving resource and investment security for agricultural and allied industry production.
- Minimise the potential for land use conflict by:
  - providing adequate separation distances between potential conflicting land uses;
  - introducing management requirements that protect existing agricultural land uses;
  - identifying areas that are suitable and capable for intensive agricultural pursuits as agricultural priority areas; and
  - avoiding location of new rural settlements in areas that are likely to create conflict with established or proposed agricultural priority areas.

- Carefully manage natural resources by:
  - discouraging development and/or subdivision that may result in land or environmental degradation;
  - integrating land, catchment and water resource management requirements with land use planning controls;
  - assisting in the wise use of resources including energy, minerals and basic raw materials;
  - preventing land and environmental degradation during the extraction of minerals and basic raw materials; and
  - incorporating land management standards and sequential land use change in the land use planning and development process.

#### Compliance evaluation

Aside from the area allocated for the solar array, the proposed Development's wind component will enable simultaneous land use once operational. It is proposed that the site will retain its rural land use beneath the turbines and therefore would align with SPP2.5.

#### 4.2.4 State Planning Policy No. 3.7 – Planning in Bushfire Prone Areas

The State Planning Policy 3.7 (SPP3.7) was introduced in 2015 to guide a risk-based approach to land use planning and developments with the intention of reducing the impact of bushfires on the community, property and infrastructure through the identification of bushfire prone areas, or where development may result in a bushfire hazard. Bushfire-prone areas are designated under the *Fire and Emergency Services Act 1998* (as amended) and identification of the areas is available through the Department of Fire and Emergency Services (DFES) website.

Under SPP3.7, Bushfire Attack Level (BAL) assessment is required for habitable buildings and specified buildings on lots greater than 1,100m<sup>2</sup> for buildings which are residential (Classes 1, 2, 3 and 10a). However, bushfire planning protection criteria should be considered for other buildings and structures. It is expected that buildings and infrastructure associated with the Development will be Class 5 (office building used for commercial or professional purposes).

#### Compliance evaluation

*As vegetated corridors in rural areas are typically designated as bushfire prone areas, with a 100 metre buffer surrounding the vegetation also within the bushfire prone area, the location of bushfire prone areas has been considered during the planning of the Development.*

*The safety management plan for the construction and operational phases of the project will also include an emergency response plan which includes consideration of the evacuation of staff in the event of a bushfire. The safety management plan will also address bushfire warning procedures, including the effect of harvest and vehicle movement bans which may be issued by the Shire and prevent movement of vehicles to and from the Development.*

No habitable buildings are proposed as part of the development. Although some turbines are located within bushfire prone areas, these structures are compliant with the requirements will be demonstrated as part of the Building Permit Process.

#### 4.2.5 Environmental Protection Act 1986

The purpose of the *Environmental Protection Act 1986* (EP Act) is to prevent, control and abate environmental harm as well as to conserve, preserve, protect, enhance and manage the environment.

The Environmental Protection Agency (EPA) uses environmental principles, factors and associated objectives as the basis for assessing whether a proposal or land use planning scheme's impact on the environment is acceptable. The environmental principles, factors and objectives, therefore, underpin the environmental impact assessment process. The EPA assesses proposals likely to have a

significant effect on the environment. The terms 'significant impact' and 'significant effect' are not defined in the EP Act. Therefore, the ordinary or everyday meanings of these terms apply.

If all of the likely impacts can be managed under other relevant legislation or under Part V Clearing Regulations, then a referral to the EPA is not necessary. Table 2 assesses the project against the EPA's environmental factors, including the clearing principles based on the Flora and Fauna Assessment (FFA) (SW Environmental 2017).

**Table 2 Assessment against EPA factors**

Theme	Factor	Objective	Discussion
Sea	n/a	n/a	n/a
Land	Flora and Vegetation	To protect flora and vegetation so that biological diversity and ecological integrity are maintained.	The FFA (SW Environmental1, 2017) notes: <ul style="list-style-type: none"> <li>Clearing of approximately 0.15 ha of native vegetation at three locations associated with access tracks and less than 10 paddock trees.</li> <li>Proposal is unlikely to be at variance with any of the clearing principles provided Priority flora and the TEC are avoided.</li> </ul>
	Landforms	To maintain the variety and integrity of distinctive physical landforms so that environmental values are protected.	A Landscape and Visual Impact Assessment has been undertaken for the project and is discussed in section 4.2.12 of this report.
	Subterranean Fauna	To protect subterranean fauna so that biological diversity and ecological integrity are maintained.	Not applicable
	Terrestrial Environmental Quality	To maintain the quality of land and soils so that environmental values are protected.	Low risk of Acid Sulfate Soils.
	Terrestrial Fauna	To protect terrestrial fauna so that biological diversity and ecological integrity are maintained.	Threatened or priority fauna species have the potential to occur within the Project Area, including Carnaby's Black Cockatoo and Rainbow Bee-eater as discussed in section 4.1.1.
Water	Hydrological Processes	To maintain the hydrological regimes of groundwater and surface water so that environmental values are protected.	Not applicable
	Inland Water Environmental Quality	To maintain the quality of groundwater and surface water so that environmental values are protected.	Not applicable
Air	Air Quality	To maintain air quality and minimise emissions so that environmental values are	There will be no significant impact on air quality. Dust is expected to be

Theme	Factor	Objective	Discussion
		protected.	generated by construction activities and managed through the CEMP.
People	Social Surroundings	To protect social surroundings from significant harm.	<b>Aboriginal Heritage</b> - No lodged or registered Aboriginal artefacts or heritage sites have been recorded. <b>Non-indigenous Heritage</b> - No impacts on non-indigenous heritage sites are expected.
	Human Health	To protect human health from significant harm.	The Noise and Vibration Assessment has identified that the Development is expected to comply with noise guidelines and regulations (refer to sections 4.2.9 and 4.2.10)
<b>Clearing Principles</b>			
<p>As noted in the FFA, the clearing for the project is unlikely to be at variance with any of the clearing principles</p> <ul style="list-style-type: none"> <li>• No flora of conservation significance will be impacted</li> <li>• The TEC will require pruning based on current designs. It should be avoided if possible, as outlined below.</li> <li>• Threatened fauna are unlikely to be significantly impacted by the clearing proposed.</li> <li>• Based on the Table 5-1 of the FFA the proposal is not likely to trigger the need for federal referral as a result of clearing activities in relation to Carnaby's Black Cockatoo</li> </ul>			



#### 4.2.6 Wildlife Conservation Act 1950

The *Wildlife Conservation Act* provides for the conservation and protection of wildlife, including both plant and animal species. Threatened flora are plants which have been assessed as being at risk of extinction (DEC 2012). Under the WC Act, the Minister for the Environment may declare species of flora to be protected if they are considered to be in danger of extinction, rare or otherwise in need of special protection (WAH 1998).

Plants and animals that are considered Threatened and need to be specially protected because they are under identifiable threat of extinction are listed under the WC Act. Species which have not yet been adequately surveyed to warrant being listed under the WC Act, or are otherwise data deficient, are added to the Priority Lists under Priorities 1, 2 or 3 by the State Minister for the Environment. Species which are adequately known, are rare but not threatened, or meet criteria for near-threatened, or that have been recently removed from the threatened species or other specially protected fauna lists for other than taxonomic reasons, are placed in Priority 4.

Although the new Biodiversity Conservation Act has been introduced, parts of the WC Act are still applicable, including the Threatened species listings and controls.

#### Compliance evaluation

A Level 1 flora and fauna assessment has been carried out for the proposed wind farm at Kondinin. Desktop and site surveys found the following values within the project area:

- Nineteen vegetation units varying in condition from completely degraded to excellent condition, across >75 patches (the largest at 24 ha).
- Several structural fauna habitats occur at the site with poor to good fauna habitat value, including:
  - Tall woodland
  - Mallee
  - Shrubland
  - Cropped land
  - Farm dams (approximately 30)
  - Granite outcrops
- Beard vegetation associations 1023 and 960 that are considered over-cleared (less than 30% remaining) and under-reserved (less than 10% reserved) (DAFWA 2016) occur in the project area.
- Priority flora (4 taxa) and fauna (1 taxa) were identified as occurring within the project area, an additional 46 flora and seven fauna of conservation significance may potentially occur at the site.
- One hundred and thirty vascular flora taxa were identified within the project area, of which three were introduced species (partial list only).
- Sixty-three fauna species were identified during the field visit; 44 of these were birds.
- The presence of 29.4 ha of federally-listed “Eucalypt Woodlands of the Western Australian Wheatbelt” TEC (also P3) in the broader project area.

#### Clearing impacts

- No flora of conservation significance will be impacted
- The TEC will require pruning based on current designs. It should be avoided if possible, as outlined below.
- Threatened fauna are unlikely to be significantly impacted by the clearing proposed.
- Based on the Table 5-1 the proposal is not likely to trigger the need for federal referral as a result of clearing activities in relation to Carnaby’s Black Cockatoo

As noted in the Flora and Fauna Assessment the ‘Kondinin Wind Farm presents an overall low collision risk to birds and bats as a potential wind farm site’ (SW Environmental 2017).

#### 4.2.7 Biodiversity Conservation Act 2016

The *Biodiversity Conservation Act* provides for the conservation and protection of biodiversity and biodiversity components in WA, the ecologically sustainable use of biodiversity components in WA, and the repeal of the *WC Act* and *Sandalwood Act 1929*.

Parts of the Act came into effect on 3 December 2016, including the ability for the Minister to:

- Approve “Biodiversity management programmes”;
- Agree to “Biodiversity conservation agreements”; and
- Make regulations for certain matters identified in the Act.

It also includes the ability for the Director General of Parks and Wildlife to enter into “Biodiversity Conservation Covenants” with private landholders.

Provisions that replace those under the *WC Act* and the *Sandalwood Act* and their regulations have not yet been brought into effect.

### Compliance evaluation

A Level 1 flora and fauna assessment has been carried out for the proposed wind farm at Kondinin. Desktop and site surveys found the following values within the project area:

- Nineteen vegetation units varying in condition from completely degraded to excellent condition, across >75 patches (the largest at 24 ha).
- Several structural fauna habitats occur at the site with poor to good fauna habitat value, including:
  - Tall woodland
  - Mallee
  - Shrubland
  - Cropped land
  - Farm dams (approximately 30)
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- Beard vegetation associations 1023 and 960 that are considered over-cleared (less than 30% remaining) and under-reserved (less than 10% reserved) (DAFWA 2016) occur in the project area.
- Priority flora (4 taxa) and fauna (1 taxa) were identified as occurring within the project area, an additional 46 flora and seven fauna of conservation significance may potentially occur at the site.
- One hundred and thirty vascular flora taxa were identified within the project area, of which three were introduced species (partial list only).
- Sixty-three fauna species were identified during the field visit; 44 of these were birds.
- The presence of 29.4 ha of federally-listed “Eucalypt Woodlands of the Western Australian Wheatbelt” TEC (also P3) in the broader project area.

#### Clearing impacts

- No flora of conservation significance will be impacted
- The TEC will require pruning based on current designs. It should be avoided if possible, as outlined below.
- Threatened fauna are unlikely to be significantly impacted by the clearing proposed.
- Based on the Table 5-1 the project is not likely to trigger the need for federal referral as a result of clearing activities in relation to Carnaby’s Black Cockatoo

As noted in the Flora and Fauna Assessment ‘the Kondinin Wind Farm presents an overall low collision risk to birds and bats as a potential wind farm site’ (SW Environmental 2017).

#### 4.2.8 Biosecurity and Agriculture Management Act 2007 (BAM Act)

Biosecurity is the management of the risk of animal and plant pests and diseases entering, emerging, establishing or spreading in WA to protect the economy, environment and community. Biosecurity is managed under the BAM Act which came into effect 1 May 2013. Exotic animals and plants can become an invasive species if they can establish in new areas where local conditions are favourable for their growth.

##### Compliance evaluation

Materials and components imported into Western Australia would be expected to comply with the BAM Act and therefore would be unlikely to introduce exotic animals and plants which may become invasive species.

#### 4.2.9 Environment Protection Authority (South Australia) – Wind farms – Environmental noise guidelines, July 2009

The Department of Water and Environmental Regulation (DWER, formerly Department of Environment and Conservation) endorses the criteria and approach of assessing wind farms based on background noise levels, as described in the South Australian guidelines – *Environment Protection Authority – Wind Farms Environmental Noise Guidelines (South Australia)*.

These Guidelines require that, to prevent adverse impacts from the wind turbine generator noise, the noise source level must be compared to the corresponding background noise (as measured and analysed in accordance with the regression analysis procedure outlined in Section 3 of the SA Guidelines) at the relevant receiver.

The predicted equivalent noise level ( $L_{Aeq,10}$ ), adjusted for tonality in accordance with these guidelines, should not exceed the following criteria at all relevant receivers for wind speed from cut-in to rated power of the turbine and each integer wind speed between. The criteria, whichever is the greater, are:

- 35 dB(A) at relevant receivers in localities which are primarily intended for rural living, or
- 40 dB(A) at relevant receivers in localities in other zones, or
- The background noise ( $L_{A90,10}$ ) by more than 5 dB(A),

The Project is located within a rural area; therefore the 35 dB(A) baseline criterion and the adjusted “background + 5” dB(A) criteria apply to all relevant noise-sensitive receivers.

##### Compliance Evaluation

Based on the environmental noise impact assessment undertaken for the proposed Kondinin Wind Farm in accordance with the SA Guidelines, the noise emissions from the Project’s wind turbine generators are expected to comply with the requirements of the SA Guidelines for all participating and non-participating landowners’ residences.

Sensitive receptors on private land in the vicinity of the Project which have an agreement with Kondinin Energy in relation to the location and operation of the proposed WTGs are referred to in this report as “Participating Landowners”. An agreement has been reached between Kondinin Energy and the Participating Landowners to deviate from the above environmental noise criteria, which have been developed to minimise the impact of the Project on the amenity of premises which do not have such an agreement, referred to in this report as “Non-participating Landowners”.

However, any such agreement cannot contravene the *Environment Protection Act*, which requires that the development may not have an adverse effect on the amenity of the area which unreasonably interferes with the enjoyment of the area. Specifically to this, health impacts must be considered, in particular sleep disturbance. The *World Health Organization Guidelines for Community Noise* recommend a 30 dB(A) indoor limit to prevent negative effects on sleep. The *Working Group on Noise from Wind Turbines (Final Report, ETSU for DTI, 1996)* recommends the outdoor noise limit of 45 dB(A) (after any adjustment for tonality) for landowners having financial involvement in the wind farm. If the wind farm noise does not exceed 30 dB(A) indoors and 45 dB(A) outdoors at the localities belonging to the financial stakeholders, it is considered acceptable.

#### 4.2.10 Environmental Protection (Noise) Regulations 1997

The *Environmental Protection (Noise) Regulations 1997* provide criteria for allowable noise from the substation proposed for the Project. The *Assigned Level* (the allowable noise level) when received at a premises is based on the calculation of an Influencing Factor added to a base level.

For noise-sensitive premises, the Influencing Factor is calculated based on the land use zones within circles of 100 m and 450 m radius from the receiver, and address:

- The percentage of land zoned Industrial;
- The percentage of land zoned Commercial;
- The presence of major roads within circles, and
- The number of secondary roads within the 100 m radius circle.

The Assigned Levels are also dependent of the time of day, separated into day, evening and night periods.

For the noise-sensitive receivers in the vicinity of the Project, there are no commercial or industrial premises within either 100 m or 450 m, nor are there major or secondary roads within these distances; hence there is no Influencing Factor to be applied. Therefore, the Assigned Levels result in the criteria shown in Table 3 being applicable to environmental noise emission from Project's substation.

**Table 3 Environmental noise emission criteria (Assigned Level)**

Type of premises receiving noise	Time of day	Environmental noise emission criteria dB(A)		
		L <sub>A,10</sub>	L <sub>A,1</sub>	L <sub>A,max</sub>
Noise sensitive premises – highly sensitive area	0700 to 1900 hours Monday to Saturday	45	55	65
	0900 to 1900 hours Sunday and public holidays	40	50	65
	1900 to 2200 hours all days	40	50	55
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and public holidays	35	45	55

These criteria do not consider annoying characteristics such as spectral modulation, tonality, or impulsiveness which are likely to arouse adverse community response at lower levels than noise without such characteristics. Where noise from site includes such annoying characteristics additional penalties will be attracted generally in accordance with the EPNR.

#### Compliance Evaluation

Based on the environmental noise impact assessment undertaken for the proposed Kondinin Wind Farm in accordance with the EPNR, the noise emissions from the Project's substation are expected to comply with the requirements of the EPNR at all potentially affected noise-sensitive receptors.

#### 4.2.11 Planning Bulletin 67

Planning Bulletin (PB67) (WAPC 2004) provide guidance to wind farm proponents and approval authorities on the requirements for assessment of onshore wind farms in the WA planning context.

The bulletin addresses a range of technical, planning, environmental and amenity issues and details the expected level of information requirements as a 'checklist' to assist in the preparation of wind farm proposals, included in the compliance evaluation table below..

Compliance Evaluation		
Information requirements	Requirement description	Evidence of compliance
Site analysis	Provision of a context statement for the locality including current planning framework, significant features, sites of cultural significance, characteristics, contours, existing land uses and ownership	Discussed in section 2.0 of the DAR
	Provision of a technical assessment on the suitability of the site having regard to alternative potential sites in the area (possible cumulative impact) including wind information, landscape significance, ground conditions, erosion factors, surface and groundwater conditions	Discussed in section 2.0 of the DAR
	Provision of a description of access to the electricity network	Discussed in section 3.2.9 of the DAR
Windfarm design statement	Provision of a turbine design, including dimensions, height, colour and materials	Summarised in Section 2.0 of this report
	Layout, orientation and siting arrangements	Discussed in section 3.2.3 of the DAR
	Road design	Discussed in section 3.2.12 and 3.2.13 of the DAR
	Identification of topsoil, overburden, vegetation clearing and rehab areas	Discussed in section 2.5.3 of the DAR. No rehabilitation is proposed at this time as the project area is largely disturbed agricultural land
	Small scale plans and cross sections showing the layout of the turbines, infrastructure ancillary buildings and equipment	Discussed in Appendix B of the DAR
	Power output and description of electrical specifications and connections	Discussed in section 3.2.9 of the DAR
	Operational maintenance arrangements, including tourist management facilities and amenities as appropriate	Maintenance arrangements are discussed in 3.2.19 of the DAR
Impact assessment and mitigation measures	A design response to the site analysis and methodology statements on how any adverse impacts will be managed (preparation of environmental management plan - as necessary)	Discussed in section 3.5 of the DAR
	EIA should include LVIA statement to address specific issues outlined in Planning Bulletin 67. This should use as appropriate, computer visualisation, simulation, view shed analysis, static seen area diagram	A Landscape and Visual Impact Assessment (LVIA) has been undertaken for the project and is included in Appendix E of the DAR. Photomontage representations of the

Compliance Evaluation		
	and other modelling data.	anticipated visualisation in Chapter 5.0 of the LVIA.
	Noise impacts including sound power level of the turbine and sound propagation modelling for the expected operational range of wind speeds	A Noise Impact Assessment has been undertaken for the project and is included in Appendix F of the DAR. Predicted noise levels from the wind turbines are tabulated in Table 7 of the noise report, and the predicted noise contours are presented in Appendix G of the Noise Impact Assessment.
	EIA to include vegetation, fauna, avifauna, biodiversity, ground erosion, stability, surface water, groundwater and aquifers	A flora and fauna assessment is included in Appendix D of the DAR and includes: <ul style="list-style-type: none"> <li>Vegetation in section 4.1, with potential impacts discussed in section 5.1 and 5.1</li> <li>Birds and bats in section 3.4 with potential impacts in section 5.3</li> </ul> Waterways, geology and soils are discussed in sections 2.5.2 and 2.5.3 of the DAR
	Amenity impact assessment which includes blade glint/shadow flicker, overshadowing, aboriginal artefacts, heritage archaeology, electromagnetic interference, vehicular and non-vehicular access and transport corridors, aviation flight paths and air fields, railways and any cumulative impacts	<ul style="list-style-type: none"> <li>Shadow flicker and blade glint are discussed in section 3.2.10 of the DAR</li> <li>Aboriginal heritage is discussed in section 2.5.5 of the DAR</li> <li>Electromagnetic interference is discussed in section 3.5.7 of the DAR</li> <li>Site access and transportation is discussed in section 3.5.6 and Appendix G of the DAR</li> <li>Aviation issues are discussed in section 3.5.9 and Appendix I of the DAR</li> </ul>
	Construction impacts including staging, phasing and freight transportation proposals	Construction impacts are discussed in section 3.2 of the DAR
	Power network connection and transmission line infrastructure	Discussed in section 3.2.9 of the DAR
	Decommissioning and reinstatement proposals	Decommissioning and rehabilitation is discussed in section 3.2.20 of the DAR.
	Social and economic benefits, tourism potential, relationship to other similar developments and design life span	Whilst no tourist facilities are proposed as part of the development, experience from other wind and solar farm developments in Western Australia indicates that there is a potential for the Development to encourage visitors to the region. As noted in sections 3.2.17 and 3.2.19 of the DAR, the project will result in the employment of approximately 10



Compliance Evaluation		
		people at the Development. During construction, the project is expected to inject between \$10 and \$20 million into the local economy through the use of local contractors and service providers.
Consultation	Consultation with the relevant govt. agency stakeholders, conduct meetings and also engage with the community	<p>Details of consultation which has occurred during the project development are summarised in section 2.7 of the DAR.</p> <p>Commitments to consult with stakeholders, including the community are reflected in the Project Commitments in Appendix J of the DAR.</p>

#### 4.2.12 Visual Landscape Planning in Western Australia

The *Visual Landscape Planning in Western Australia – A Manual for Evaluation, Assessment, Siting and Design* (WAPC 2007) aka the *Visual Landscape Planning* guides project proponents and planners to ensure a consistent approach to the consideration of visual landscape matters in the planning process.

The requirements for a Landscape and Visual Assessment are discussed in Section 6.1 of PB67. This is supported by the *Visual Landscape Planning* (WAPC, 2007), which provides guidance on the consideration of visual impacts, including a section devoted to wind farm developments. In both the PB67 and the *Visual Landscape Planning*, the aim is to minimise potential impacts where possible by establishing and identifying visual criteria and management objectives.

This section summarises the elements specific to wind farms from both the PB67 and the *Visual Landscape Planning* documents.

##### *Scenic elements*

The proposed site for the wind farm is within a rural landscape type and the following landscape components are potentially affected by the proposed Kondinin wind and solar farm:

- Landscape, which includes topographic variation, presence of vegetation and water forms;
- Natural areas and features including the presence of ridgelines, valleys, waterfalls and rivers within the surrounding areas; and
- Land use character including compatibility of existing and future land uses associated with the site of the wind and solar farm and the surroundings within a 15 km radius of the site aligned to the visible distance. Visibility of the wind farm is in the context of the location, skyline and viewsheds (a.k.a. view ports)

Two other elements identified by the PB67 and the *Visual Landscape Planning* (WAPC 2007) documents are not applicable to this site and its surrounds. These are consideration of sensitive coastal areas, and anticipated changes in future land use surrounding the development, including proposed areas for future urban development.

##### *Visual elements*

The elements which have the potential to affect the surrounding landscape and its visual character for the proposed Kondinin wind and solar farm include:

- Siting and layout of the wind farm in terms of the location of each turbine within the project area;
- Design of the turbines, including rotor size, blade rotational speed, height, colour and reflectivity;

- Ancillary features including associated access roads, buildings, signage, telecommunications infrastructure and transmission lines; and
- Construction procedures, including any temporary construction areas which are to be rehabilitated following construction.

#### Compliance evaluation

A Landscape and Visual Impact Assessment (LVIA) meeting the requirements of Visual Landscape Planning has been undertaken for the project and is included in Appendix E of the DAR.

#### 4.2.13 Strategic Energy Initiative: Energy 2031

In 2011, the WA state government released its Energy 2031 Strategic Energy Initiative, which proposes a vision to the year 2031. The initiative is built on four strategic goals which are:

- Affordable energy – Western Australians having access to affordable energy that meets their needs.
- Secure energy – Western Australia’s energy supply is sufficient to meet demand over the longer term.
- Reliable energy – Western Australia’s energy supply is safe and of a consistently high quality and delivered with minimal disruption.
- Cleaner energy – Western Australia’s energy production and use demonstrates good environmental stewardship and minimises greenhouse emissions.

#### Compliance Evaluation

The proposed Development is closely aligned with the overall intent of this initiative, as it will ‘ensure energy production and use is compatible with good environmental stewardship and minimises carbon emissions’. The proposal aims to deliver a clean and renewable source of energy that contributes to the reduction in the reliance on fossil fuels based energy production, and with it avoid the production of greenhouse gases during energy generation throughout the life of the project.

#### 4.2.14 State Sustainability Strategy

The WA State Sustainability Strategy was released in 2003 and as part of this strategy, it has defined sustainable development as:

*Meeting the need of the current and future generations through integration of environmental protection, social advancement and economic prosperity (Government of Western Australia, 2003).*

The State’s definition, based on the Brundtland definition (Brundtland, 1987), embeds the principles of protection of environmental assets, the advancement of our society and economic development within the context of meeting the needs of existing and future generations; this is often known simply as the “triple-bottom-line”. A sustainability framework was proposed in the strategy, consisting of seven foundation principles and four process principles that reflect the core values of sustainability:

- Long-term economic health
- Equity and human rights
- Biodiversity and ecological integrity
- Settlement efficiency and quality of life
- Community, regions, ‘sense of place’ and heritage
- Net benefit from development
- Common good from planning

Four process principles were also identified.

### Compliance evaluation

The proposed Development is also directly aligned with the key objectives and initiatives of the 'Sustainable Energy' sub-strategy, as outlined below:

- The proposal adopts best-practice energy management in the WA community.
- The proposal demonstrates a greater awareness of the environmental, economic and social benefits of energy efficiency and renewable energy as it will:
  - provide a clean source of energy which has a much lower environmental impact than conventional energy producing technologies, and
  - bring economic benefits to the local regional community as the development creates new jobs, regional development and long-term economic growth.
- The proposal facilitates the replacement of old electricity generators in the State with new, cleaner technologies.
- The proposal is aligned with the State Government actions and Federal Government initiatives, including the Mandatory Renewable Energy Target (MRET). The MRET aims to increase the amount of energy generated from renewable sources and recognises the benefits of demand-side initiatives for energy conservation.

## 4.3 Regional

### 4.3.1 Wheatbelt Regional Planning and Infrastructure Framework Parts 1 and 2

The proposed Development is proposed for the Shire of Kondinin in Western Australia's Wheatbelt Region. This regional framework is the second tier document preceded by the WA State Planning Strategy. Its objectives for the Wheatbelt are to:

- Provide liveable communities
- Provide a Vibrant Economy
- Provide valued natural amenities

### Compliance Evaluation

The Proposed Development links into contributing to a vibrant economy as well as providing (maintaining) valued natural amenities.

The Wheatbelt has a large capacity for renewable energy contribution not only to the SWIS electricity network, but also for off-grid energy provisions.

The proposal by Kondinin Energy will generate renewable energy source power which will be fed into the grid providing power to towns and businesses.

The environmental studies, and with particular relevance to this framework, the landscape and visual impact assessment, provided with this application has been executed in accordance with current practice expectations, which work with the existing landscape to preserve the character while providing the benefits that renewable energy sources can provide.

## 4.4 Local planning framework

### 4.4.1 Kondinin Town Planning Scheme Number 1

The Shire of Kondinin Town Planning Scheme No.1 (TPS1) provides the local statutory framework for land use and development control within the Kondinin Locality. An assessment of the proposed Development against relevant provisions of the scheme is provided in this section of the report.

The aims of the Kondinin TPS1 are:

- To secure the amenity, health and convenience of the Scheme area and the inhabitants thereof;
- To ensure there is a sufficient supply of suitable serviced land for housing, employment, commercial activities, community facilities, recreation and open space;
- To provide for housing choice and variety in neighbourhoods with a community identity and high levels of safety, accessibility and visual amenity;
- To preserve, protect and enhance townscapes and places, buildings and objects of heritage value, historic interest, natural beauty or scientific interest which exist throughout the Shire;
- To promote the sustainable use of rural land for agricultural purposes whilst accommodating other rural activities;
- To protect, conserve and enhance the environmental values and natural resources of the Scheme area including the protection of remnant vegetation and the rehabilitation and revegetation of degraded land while providing appropriate development opportunities to promote the local economy;
- To promote ecologically sustainable land use and development;
- To assist the effective implementation of the State Planning Strategy, State Planning Framework (SPP No.8) and other adopted strategies and policies as these apply to the Wheatbelt Region; and
- To make provision for other matters necessary or incidental to town planning and development generally.

#### Compliance Evaluation

With respect to the Scheme's aims, the proposed Development is aligned generally with each of the scheme's aims as it demonstrates to provide a sustainable ecological and amenity conscious development. The proposals attempts to protect and enhance the environmental values of the rural locality and safeguard the amenity of the Shire through locating in an area which is away from town views and involves minimal native vegetation clearing, the sustainable source of energy will provide a viable energy source which enables economic growth of this part of the Wheatbelt.

#### 4.4.1.1 Zoning

The proposed Development is located within a 'rural' zone of the Shire, according to Map 1 of the TPS1, which is defined to:

- Ensure the continuation of broad-hectare farming as the principal land use in the District and encouraging, where appropriate, the retention and expansion of agricultural activities.
- Consider non-rural uses where they can be shown to be of benefit to the District and not detrimental to the natural resources or the environment.
- Allow for facilities for tourists and travellers, and for recreation uses.

Development within the rural zone are to abide by the restrictions as set out in clause 5.24 (Rural Zone), excluding where clearing of native trees or substantial vegetation is required for firebreaks, access to building sites, area of buildings and cash crops. As clearing of less than 2,000 m<sup>2</sup> is required, the additional provisions under this scheme do not apply.

The TPS also recognises the importance of prime agricultural land in the rural zone and further subdivision of existing lots will only be supported where the land has already been physically divided which prevent the use of the land as a single unit.

### Compliance Evaluation

The proposed Development, while not a typical form of farming, is a diversified form of farming that has local, regional and state benefits.

The project footprint will occupy land which is currently used for agricultural purposes and it is envisaged that on the site the existing farming activities would be able to continue during the lifetime of the project.

#### 4.4.1.2 Land use definition

As outlined in Planning Bulletin 67, the Model Scheme Text does not include a definition for wind farms or wind energy facilities, hence wind farm developments are typically classified as a 'use not listed' in town planning schemes. A 'wind farm' as a use class is not specifically defined in the Shire of Kondinin TPS1 and therefore it is classified as a 'use not listed' in accordance with Clause 4.4.2.

### Compliance Evaluation

It is expected that the Shire will determine that either the use is or may be consistent with the objectives of the Rural zone.

#### 4.4.1.3 Advertising of applications

Advertising of the Development Approval in line with the requirements of the TPS1 is expected in accordance with the TPS and include submission of Form 2 – Additional Information for Development Approval for Advertisements. Advertising may include letters to land owners and occupants of neighbouring properties, advertising in newspaper(s) and/or display notice signage for a period of at least 14 days.

### Compliance Evaluation

Kondinin Energy will comply with the required advertising requirements.

#### 4.4.2 Development Application

##### Accompanying material

Clause 9.2 of the Kondinin TPS1 outlines the information that is required to be submitted, where applicable, with an Application for Planning Approval.

### Compliance Evaluation

Information requirements	Evidence of meeting requirement
Location of the site including street names, lot numbers, north point and the dimensions of the site	Section 1.0 of the DAR identifies the locations and dimensions of the site, with section 1.4 identifying the specific Lots and Plan numbers associated with the development.
The existing and proposed use of the site, including proposed hours of operations, and the buildings and structures to be erected on the site	Section 3.2.18 of the DAR notes that the operational staff will work business hours, six days per week
The existing and proposed means of access for pedestrians and vehicles to and from the site	<p>Pedestrian access is not expected to be possible to the site. Public access via public roads, which as noted in section 3.2.12 of the DAR will remain open.</p> <p>Vehicle access during construction and operation will be via the public road network, along Notting-Kalgarin Road. Construction site access is discussed in section 3.2.13 of the DAR.</p>

Compliance Evaluation	
The location, number, dimensions and layout of all car parking spaces intended to be provided	Limited car parking, associated with the employees of the site will be providing adjacent to the site office.
The location and dimensions of any area proposed to be provided for the loading and unloading of vehicles carrying goods or commodities to and from the site and the means of access to and from those areas	<p>Vehicle access during construction and operation will be via the public road network, along Notting-Kalgarin Road. Construction site access is discussed in section 3.2.13 of the DAR.</p> <p>Deliveries to site during construction re expected to be made to hardstands (section 3.2.8 of the DAR) or laydown and stockpile locations (section 3.2.15 of the DAR).</p> <p>Deliveries during operation are expected to be minor, and would be accommodated within the hardstands which will remain in place following completion of construction as noted in section 3.2.7 of the DAR.</p>
The location, dimensions and design of any open storage or trade display area and particulars of the manner in which it is proposed to develop the same	No open storage or trade display areas are proposed. Where open storage is required, for example for replacement component during the operation of the project, these would be located in the hardstands.
The nature and extent of any open space and landscaping proposed for the site the nature and extent of any open space and landscaping proposed for the site	No landscaping is proposed.
Plans, elevations and sections of any building proposed to be erected or altered and of any building it is intended to retain	Infrastructure images indicative of what is expected to be installed as part of the Development are provided in Appendix K of the DAR.
Any specialist studies that local government may require the applicant to undertake in support of the applications such as traffic, heritage, environmental, engineering or urban design studies	Specialist studies supporting the Development Application are provided in Appendix D through to Appendix I
Any other plan or information that the local government may require to enable the application to be determined.	<p>A Development Application Planning Report has been provided to assist the Shire with evaluating the Development Application.</p> <p>The DAR includes this Compliance Report which identifies the Commonwealth, State, Regional and Local government planning and approvals frameworks relevant to the Development.</p>



## 4.5 Industry Guidelines

### 4.5.1 Best Practice Guidelines for Implementation of Wind Energy Projects in Australia

The *Best Practice Guidelines for Implementation of Wind Energy Projects in Australia* (Clean Energy Council 2013) (aka *Best Practice Guidelines*) aim to provide detailed best-practice guidelines for the planning and operation of wind farms in Australia, including key project processes and other technical considerations. The Guidelines also place an emphasis on the environmental, amenity and stakeholder consultation aspects of the planning and operation of wind farms.

The Guidelines follow a chronological path through the following project development phases, including:

- Site Selection
  - Wind resource
  - Critical impediments
  - Site boundary
  - Landownership negotiations
  - Preferred development solution
- Project Feasibility
  - Site constraints
  - Approvals process
  - Confirmation of wind resource through monitoring
- Project Detailed Assessment
  - Site specific investigations associated with environment, heritage and technical considerations
- Planning and Environmental approvals
  - Development Application
  - Environmental and/or heritage approvals
- Construction requirements and impacts
  - Regulatory, environmental, heritage and technical considerations
  - Consultation with key stakeholders, including Shire and landowners, the Civil Aviation Safety Authority
- Wind Farm Operation
- Decommissioning and Rehabilitation Planning

#### Compliance Evaluation

Kondinin Energy Pty Ltd (the Applicant), a subsidiary company of Lacour Energy Pty Ltd (Lacour Energy) is intends to submit a Development Approval for the Kondinin Wind and Solar Farm (the Project).

The preferred option, as outlined in Development Application Planning Report (DAR) prepared by Lacour Energy (2018), is a large-scale wind and solar farm located on land which is predominantly cleared. A description of the project is provided in section 3.2 of the DAR and a summary of the projects footprint in section 2.2 of the DAR.

Suitability of the wind resource in the area is provided in sections 3.2.2, 3.2.4 and a summary is provided in 2.6.1.3 of the DAR.

In identifying this preferred option, the *Best Practice Guidelines* have been considered. This includes:

### Compliance Evaluation

- Justification for the site selection, and the factors considered including those identified in the *Best Practice Guidelines* is provided in section 2.6.1.
- Compliance with legislative and regulatory framework which governs the project and the regulatory requirements of the framework are discussed in section 4.0 of this report.
- Land ownership is discussed in section 2.3 of the DAR.
- A summary of consultation with landowners with regards to the project is provided in section 2.7 of the DAR
- Characteristics of the site, including environmental, heritage aspects are discussed in section 2.5 of the DAR.
- Commitments to consult with stakeholders, including the community are reflected in the Project Commitments in Appendix J of the DAR. Stakeholders with specific consultation needs identified in the DAR include:
  - Road users
  - Western Power as the electricity network operator
  - Land owners
  - Waste collection operators
  - Civil Aviation and Safety Authority and aviation regulators
- Construction impacts, including construction methods are discussed in section 3.4 of the DAR, whilst construction workforce, site access during construction, temporary construction compounds are discussed in section 3.2 of the DAR.
- Operational impacts are discussed in the relevant sub-sections of the Project Development Details, noting that the final selection of technologies would be determined during detailed design.
- Measures to manage potential impacts associated with both construction and operation of the project are discussed in section 3.5 of the DAR.
- Decommissioning and rehabilitation is discussed in section 3.2.20 of the DAR.

Planning Bulletin 67 is also referenced in the Best Practice Guidelines, particularly in relation to noise. A discussion of compliance with regards to PB67 is provided in section 4.2.11.

## 5.0 Conclusion

This Planning Compliance Report has reviewed planning, environmental and sustainability frameworks for which it is expected that the Developmental Application submitted for the Kondinin Wind and Solar Farm Development would be assessed against.

The wind farm presented for assessment in the Development Application Planning Report is conservative, providing an upper limit on the expected infrastructure and ancillary requirements within the proposed project footprint. Finalisation of the design, infrastructure specifications and ancillary facilities will occur once the Approval of the Development Application is granted.

To support this, the technical studies supporting the Development Application have used the conservative 'worst case scenario' view and identified mitigations for potential impacts to manage negative impacts. These are also reflected in project commitments in Appendix I.

On the basis of the documentation reviewed, the proposal has considered the requirements of relevant Commonwealth, state, regional and local planning, environmental, and sustainability legislation, regulations and guidelines and has demonstrated compliance, or a commitment to meet requirements set out. This includes the requirements as identified in the Shire of Kondinin Town Planning Scheme which are reviewed in the context of the Development Application Checklist.

The project will generate significant quantities of renewable energy each year. In doing so, the project is strongly aligned with:

- *Renewable Energy (Electricity) Act 2000*, in particular the MRET scheme.
- State Planning Strategy 2050
- State Sustainability Strategy
- Strategic Energy Initiative: Energy 2031

It is also strongly aligned with political and community values on the desire to increase the renewable energy aspect of the Western Australian fuel mix and to mitigate against climate change through greenhouse gas emission reductions.

The project footprint is predominantly in previously cleared, agricultural land which proposes to clear 0.15 Ha of highly disturbed, degraded vegetation, representing less than 1 percent of the remnant vegetation in the project area. The Development will also avoid all areas of good or better quality vegetation, including a neighbouring Threatened Ecological Community which has been considered during the site planning, and will be avoided during construction and operation.

Whilst use of the land as a wind farm is different from the existing landscape character, the landscape and visual impact of the Development were considered to be low based on the scenic quality of the landscape within which the structures will reside. Although it is not the intent of the Development to be a tourist attraction, experience from other Western Australian wind projects suggests that the Development may attract visitors to the region.

In relation to other amenity impacts:

- Noise impacts on the residential occupants have been assessed in the Noise and Vibration Assessment and are expected to comply with the relevant noise criteria.
- Shadow flicker analysis as reported in the DAR demonstrates that no shadow flicker would occur at the nearest properties
- Interference to radio, radar and communications was unlikely to have any detrimental effects on the community or on radio communications services.
- Minor impacts to the traffic operation of the surrounding road network, in particular the public roads surrounding the Development are expected and would be managed through a Traffic Management Plan.
- The existing land use and zoning of the land is consistent with the Development, which would not impact on the ability for the landowners to conduct agricultural activities.

A range of social and local economic impacts were also assessed as part of the compliance review. This assessment has identified that:

- The project is not expected to have significant impact on aviation services once mitigation measures are implemented which comply with regulatory requirements associated with aviation services at the Kondinin Airstrip.
- The project is expected to create jobs during construction and operation as well as to inject approximately \$10-20 million in the local economy during construction.
- Landowners will be provided with income, diversifying their revenue stream, thereby encouraging agricultural activities to continue to be undertaken on the land.
- Contribution of \$2.5 million over the life of the project to the community through a Community Fund



## 6.0 References

Clean Energy Council 2013, Best Practice guidelines for implementation of wind energy projects in Australia

Government of Western Australia – Office of Energy, Energy31 Strategic Energy Initiative Directions Paper, A smarter energy future for Western Australians, March 2011

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Regional Development Australia Wheatbelt Inc, Strategic Regional plan 2013-2018 V1, Sept 2013.

Shire of Kondinin. 2011. Town Planning Scheme No. 1 (District Scheme). URL <http://www.kondinin.wa.gov.au/file/Map01Kondininoverall.pdf> . Last Access Date 13 September 2017.

Western Australian Planning Commission, Wheatbelt – Regional planning and infrastructure Framework Part A: Regional Strategic Planning. December 2015

Western Australian Planning Commission 2004, Planning Bulletin 67 – Guidelines for wind farm development.

Western Australian Planning Commission 2007 Visual Landscape Planning in Western Australia – a manual for evaluation, assessment, siting and design.