Shire of Murray

Local Planning Policy

Renewable Energy Facilities

Prepared by Planning and Sustainability
March 2026

1. Citation

This is a Local Planning Policy prepared under Schedule 2 of the *Planning and Development (Local Planning Schemes) Regulations 2015*. This policy may be cited as *Local Planning Policy (LPP) - Renewable Energy Facilities*.

2. Purpose

The purpose of this policy is to provide guidance for the location, design and assessment of renewable energy facilities within the Shire of Murray.

This policy aims to ensure renewable energy infrastructure:

- is directed to appropriate locations;
- avoids unacceptable environmental and landscape impacts;
- protects agricultural land and future urban and rural residential growth areas;
- maintains community amenity and safety;
- is supported by appropriate technical investigations.

This policy is intended to provide local guidance pending finalisation of the Renewable Energy Planning Code being prepared by the Western Australian Planning Commission, after which time the need for detailed local provisions will be reviewed.

3. Background

Western Australia is undergoing a significant transition toward renewable energy. The Shire of Murray is well positioned to accommodate renewable energy investment given its rural land base, solar and wind resource and proximity to major transmission infrastructure.

The Western Australian Planning Commission (WAPC) released a Draft Renewable Energy Planning Code (the Code) in December 2025 for public consultation. In its initial form, the Code addresses wind farms only, with the intent that this will be expanded to address other forms of renewable energy infrastructure in time. Until such time as a comprehensive Code is in place, this Local Planning Policy (the Policy) provides guidance for the assessment of development applications for all forms of renewable energy facilities and associated infrastructure.

The Policy enables the Shire to support the growth of the renewable energy sector while protecting the significant environmental, landscape and community values and ensuring that growth areas are not prejudiced by the premature or inappropriate placement of renewable energy infrastructure.

4. Objectives

The objectives of this policy are to:

- Facilitate the development of renewable energy infrastructure in appropriate locations in a manner consistent with orderly and proper planning, balancing operational efficiency with the protection of amenity, safety and environmental values.
- Protect the internationally significant Peel-Yalgorup Ramsar Wetland system, its ecological character and the broader landscape, including migratory bird approach corridors, through which migratory and resident species access the system.
- Protect the Northern Jarrah Forest from additional land use pressure, recognising the cumulative and irreversible nature of impacts on this increasingly threatened ecosystem.
- Protect the visual character and landscape integrity of the Darling Scarp, including skylines, scenic backdrops, public spaces and transport corridors.
- Protect the visual character and scenic quality of the broader Shire landscape, including rural areas, townsites, public spaces, transport corridors and key vantage points, ensuring renewable energy facilities are sited and designed to minimise cumulative and adverse visual impacts.
- Protect other significant environmental and ecological values within the Shire, including wetlands, waterways, native vegetation, threatened species and habitat corridors.
- Safeguard areas identified for future urban and rural residential growth and productive agricultural land from sterilisation or long term prejudice by renewable energy facilities and ensure land can be rehabilitated at the end of the facility's operational life.
- Protect the amenity of existing and future sensitive land uses, including dwellings, community facilities, tourism destinations and public spaces, by minimising noise, shadow flicker, glint and glare, and other adverse impacts.
- Ensure Battery Energy Storage Systems are design, sited, constructed and operated to minimise the risk of fire, thermal runaway, explosion, toxic smoke, chemical hazards and other associated hazards and emergency management planning in accordance with recognised best practice standards.
- Ensure renewable energy facilities are designed and operated to minimise fire, bushfire, contamination, safety, aviation, transport and electromagnetic risks to people, property and critical infrastructure.
- Promote the precautionary principle in the assessment of renewable energy developments located near areas of high ecological, environmental, or landscape sensitivity.

- Support equitable community benefit outcomes, ensuring that local communities receive direct or indirect benefits from renewable energy projects and that the Shire retains a decision making oversight in the allocation of such benefits.

5. Application

This Policy applies to development applications for the following types of renewable energy facilities and associated infrastructure within the Shire of Murray:

- Wind farms, including wind turbines, associated infrastructure, and monitoring towers;
- Solar farms, including photovoltaic (PV) and concentrating solar power (CSP) facilities;
- Battery energy storage systems (BESS);
- Associated infrastructure, including electrical substations, grid connection works, powerlines, access roads, and ancillary facilities.

This Policy does not apply to small scale wind, solar or battery installations on individual lots associated with a primary land use, where incidental to that use, or to development exempt from requiring development approval under the Scheme.

6. Policy Provisions

6.1 Peel Yalgorup Wetland System

- Wind farms be unlikely to be approved on the Swan Coastal Plain within a 25 km precautionary area of the Peel Yalgorup Ramsar Wetland boundary. This 25 km buffer is applied for wind farms only and is intended to manage potential cumulative landscape and visual impacts that may affect the setting of the Ramsar wetland, as well as to account for the movement of migratory and resident fauna. Approval within this area will only be considered where the applicant demonstrates, through comprehensive and peer reviewed scientific evidence prepared by suitably qualified experts, that the development will not:
    - Adversely affect the ecological integrity of the Ramsar wetland or its migratory and resident fauna; and
    - Result in material cumulative visual or landscape impacts on the wetland setting or surrounding public vantage points.
- The evidentiary burden rests entirely with the applicant. The Shire may commission independent expert review at the applicant's cost and where reasonable scientific or visual doubt remains, the precautionary principle will be applied in favour of protecting the Ramsar site.

- Battery Energy Storage Systems (BESS) must not result in a direct or indirect risk to the ecological character, hydrology or water quality of the Peel Yalgorup Ramsar Wetland.
- Where located within a hydrological catchment draining to the Ramsar Wetland, BESS proposals must demonstrate, through site specific hydrological and hazard risk assessment that fire, flood, groundwater interaction and contaminated runoff risks can be avoided or fully contained onsite.
- In areas identified as flood prone, hydrologically connected or within the mapped surface water catchment of the Ramsar Wetland, a precautionary approach will be applied and development is strongly discouraged, unless it can be demonstrated that there is no residual environmental risk.

6.2 Northern Jarrah Forest

- Renewable energy facilities will be unlikely to be supported within the Northern Jarrah Forest, as mapped in the DBCA Forest Management Plan 2024–2033, due to its environmental significance and multiple cumulative threats which the forest is already experiencing including mining, declining rainfall and Phytophthora dieback.

6.3 Darling Scarp

- Renewable energy facilities will be unlikely to be approved within the Darling Scarp Place of Landscape Value as shown on the Scheme map.
- Renewable energy facilities located on the Swan Coastal Plain must not compromise the visual dominance, skyline integrity or scenic value of the Darling Scarp as viewed from the Swan Coastal Plain, including in particular key transport corridors, townsites or public vantage points.
- Any proposal where renewable energy infrastructure would be visible against the Darling Scarp skyline from the Swan Coastal Plain must be supported by a comprehensive Landscape and Visual Impact Assessment, prepared by a suitably qualified expert and must demonstrate that infrastructure will not:
    - Break or clutter the Scarp ridgeline;
    - Appear visually dominant when viewed from the coastal plain;
    - Undermine the Scarp’s function as an attractive natural backdrop to rural and township landscapes;
    - Result in adverse cumulative landscape impacts on the landscape character of the Scarp.
- The Landscape and Visual Impact Assessment must:
    - Include verified photomontages from representative public viewpoints;

- Assess both day time and night time visual impact (including aviation lighting where relevant);
- Assess cumulative impact with existing and approved renewable energy facilities;
- Evaluate impact on regional landscape character and sense of place;
- Consider long distance visibility modelling across the coastal plain.

- Proposals will only be supported where they will not result in material skyline intrusion or erosion of regional landscape character.

6.4 Agricultural Land

- Renewable energy facilities should avoid areas identified as Priority Agricultural Land under the Peel Region Scheme Priority Agricultural and Rural Land Use Policy.
- On other rural land, development applications must be accompanied by an Agricultural Impact Assessment demonstrating that:
  - The facility can operate without permanently compromising the productive capacity of the land;
  - Infrastructure can be removed and the site rehabilitated to a standard suitable for ongoing agricultural use at the end of the operational life;
  - Any potential contamination from construction or operation can be effectively managed and remediated;
  - Land fragmentation or severance from the siting of the facility or associated roads and other infrastructure is minimised.
- For solar farms, applicants should demonstrate opportunities for continued agricultural use (agrivoltaics) where practical.
- For BESS facilities, a contamination and hazard management plan must be submitted, addressing chemical, thermal and fire risks, as well as any residual impacts on soil or water quality.

6.5 Siting

- Renewable energy facilities must be sited and designed to avoid unreasonable impacts on sensitive land uses, environmental and ecological values, visual amenity, and future urban and rural living areas. The Shire recognises that separation distances must balance operational efficiency with protection of safety, amenity, and the natural environment.
- Default minimum separation distances are provided below. These distances are based on technical, environmental, safety, and planning considerations, and may be varied where suitably qualified expert assessments demonstrate that the underlying objectives are met.

Facility Type	Sensitive Receptor	Default Separation Distance	Rationale
Wind turbines	Non-participating dwellings	3 km	Protects amenity, complies with Environmental Protection (Noise) Regulations 1997 and manages shadow flicker impacts.
Wind turbines	Public roads and key infrastructure	Maximum turbine tip height plus 10%	Ensures rotor strike and operational safety.
Solar farms	Non-participating dwellings	500 m	Protects amenity from noise (inverters/transformers), glint and glare, and visual dominance.
BESS	Non-participating dwellings	200 m for small-scale BESS (≤10 MWh); 500 m for larger scale BESS (>10 MWh)	Addresses fire, thermal runaway, explosion, and toxic smoke risks.
All facilities	Other wetlands and watercourses	50 m	Protects hydrology, vegetation, and fauna habitats from disturbance, erosion, or contamination.
All facilities	Future urban or rural residential areas	500 m	Protects amenity from noise (inverters/transformers), glint and glare and visual dominance.

6.6 Visual and Landscape Character

- Renewable energy facilities must be sited and designed to minimise adverse visual impacts on the surrounding landscape, including views from public spaces and nearby sensitive locations, such as dwellings.
- A Landscape and Visual Impact Assessment (LVIA) is required for renewable energy facilities where the infrastructure may be visible from public spaces, transport corridors or nearby sensitive locations such as dwellings, tourism destinations or community facilities. The LVIA must be prepared by a suitably qualified landscape architect or visual impact practitioner and undertaken in accordance with the WAPC Visual Landscape Planning in Western Australia methodology. The LVIA must assess:
    - visibility from public spaces, roads, recreational areas, and other publicly accessible locations;
    - visibility and visual dominance from nearby existing or approved sensitive locations, including existing dwellings, proposed future residential or rural residential areas and approved future dwellings;

- landscape character impacts at the local and regional scale;
- cumulative visual impacts with existing or approved renewable energy facilities; and
- both daytime and night time impacts, including aviation lighting where relevant.

- Infrastructure must be designed to reduce visual clutter and maintain visual coherence. Where multiple turbines or structures are proposed they should be consistent in height, scale, colour and configuration to achieve visual uniformity.
- Colours and finishes of infrastructure must minimise visual contrast with the surrounding landscape. Turbines should generally be light grey or off-white and other structures should use muted, non-reflective colours, compatible with the surrounding landscape.
- Night lighting where required for aviation safety purposes must be the minimum intensity permitted by aviation safety requirements.
- Aviation warning lighting for wind turbines must use Aircraft Detection Lighting Systems (ADLS) where this technology can reduce the duration of lighting activation, subject to Civil Aviation Safety Authority (CASA) approval.
- Where visual impacts on public spaces or nearby sensitive locations such as dwellings cannot be adequately mitigated through siting or design, the proposal may not be supported.

6.7 Noise

- Renewable energy facilities must be designed, sited and operated to avoid unreasonable noise impacts on sensitive locations, having regard to the existing acoustic environment and amenity of the locality.
- Where a proposal includes noise generating elements, development applications are to demonstrate impacts on amenity can be suitably addressed through the preparation of a Noise Impact Assessment by a suitably qualified acoustic consultant.
- Noise modelling must be undertaken in accordance with recognised acoustic standards and must account for:
  - turbine operational noise (for wind energy facilities);
  - tonal, low-frequency or amplitude modulation characteristics;
  - cumulative noise from other nearby renewable energy facilities where relevant; and
  - the prevailing background noise environment.
- Compliance with the Environmental Protection (Noise) Regulations does not of itself demonstrate that noise impacts on the amenity of the locality are acceptable. The Shire may require additional assessment, mitigation measures or greater separation

distances where modelling or site conditions indicate the potential for adverse impacts on amenity of the locality.

- Proponents must demonstrate that the development:
    - avoids unreasonable noise impacts on sensitive locations; and
    - maintains the reasonable expectations of amenity having regard to the existing character of the locality.
- Where necessary, conditions of approval may require:
    - operational noise management plans;
    - post-construction noise monitoring; and
    - implementation of mitigation measures if adverse noise impacts are identified.

6.8 Shadow Flicker (Wind Turbines only)

- Wind turbines must be sited and operated to minimise shadow flicker impacts on nearby sensitive locations and to ensure that shadow flicker does not result in unreasonable amenity impacts.
- Proposals must ensure that shadow flicker at any visually sensitive location on a non-participating lot does not exceed:
    - 30 hours per year and 30 minutes on any single day, based on theoretical shadow flicker modelling; or
    - 10 hours per year, based on predicted actual shadow flicker modelling.
- A Shadow flicker assessment must be undertaken by suitably qualified expert using recognised and accepted modelling methodologies. Modelling must have regard to recognised national or international benchmarks and technical standards for shadow flicker assessment and must demonstrate that impacts on non-participating dwellings are avoided or minimised having regard to the existing and planned amenity of the locality.
- Where modelling identifies the potential for shadow flicker impacts approaching or exceeding these limits, proposals must incorporate appropriate design, siting or operational mitigation measures, which may include turbine relocation, vegetation screening or operational controls such as turbine shutdown during identified periods.
- The above limits apply to non-participating dwellings. Different arrangements may apply to participating dwellings where the occupier has entered into a written agreement with the project operator.

6.9 Natural Environment

- Renewable energy facilities must be sited, designed, constructed and operated to minimise impacts on flora, fauna, and natural environmental systems. Native vegetation clearing should be avoided wherever practicable by locating infrastructure in areas that have already been cleared or disturbed. Particular care must be taken to protect threatened species, migratory species and threatened ecological communities, as well as regionally significant environmental assets such as the Northern Jarrah Forests, Peel Yalgorup Ramsar wetlands and other conservation areas.
- Renewable energy facilities must be sited and set back to avoid impacts on conservation areas and known habitats of threatened species.
- Wind turbines must be designed and operated to reduce impacts on migratory and resident fauna, including by:
    - Ensuring rotor swept paths avoid known flight paths;
    - Incorporating design features that deter collision; and
    - Implementing technology to detect bird and bat activity and curtail turbine operation where required.
- Operational land management practices must be implemented to reduce the attractiveness of turbines to collision prone species, maintain biosecurity and minimise the spread of pests, weeds, and disease.
- Renewable energy facilities must avoid or minimise impacts on sensitive water resources, including waterways and conservation or resource enhancement wetlands.
- Renewable energy facilities must not disrupt natural drainage patterns and should avoid construction in flood prone areas.
- Stormwater, groundwater and sediment management systems must be designed and implemented to maintain water quantity and quality.
- Disturbance of contaminated land or acid sulphate soils must be avoided or minimised and where unavoidable, appropriate management measures must be implemented to prevent adverse environmental impacts.

6.10 Aviation Safety (Wind turbines and solar farms only)

- Wind farms must be sited, designed, constructed and operated to maintain the safety, efficiency, and operational integrity of:
    - Airports, aerodromes, aircraft landing areas and associated aviation operations and navigation; and
    - Low flying aviation activities, including aerial mosquito spraying activities, recreational aviation, helicopter operations and emergency air services.

- Infrastructure must avoid hazards or unacceptable risks to aircraft safety and minimise impacts on existing and where relevant planned aviation infrastructure.
- Where residual aviation risks cannot be fully avoided, effective mitigation measures must be implemented, including but not limited to siting adjustments, operational procedures and technological solutions.
- Wind turbines and associated infrastructure must incorporate appropriate lighting and marking to address aviation safety risks, while minimising visual amenity impacts in the surrounding landscape.
- Aircraft Detection Lighting Systems (ADLS) or equivalent technologies should be used where feasible to reduce duration and intensity of lighting activation, subject to CASA approval.
- Solar farms must be sited, designed and constructed to avoid or minimise glare and reflection impacts that may adversely affect pilots, air traffic control operations and aviation navigation systems.
- A glare assessment must be undertaken for solar installations where located within or near aviation corridors or facilities, demonstrating that reflected solar radiation will not result in hazardous glare for aircraft operations or air traffic control towers.
- Where glare or reflection risks are identified, mitigation measures must be implemented, including panel orientation and tilt optimisation, anti-reflective coatings, screening, or alternative siting to ensure aviation safety is not compromised.

6.11 Bushfire Risk

- Renewable energy facilities must be sited and designed to minimise the risk of bushfire ignition and ensure safety in bushfire prone areas.
- Infrastructure must not compromise bushfire protection measures, including access for firefighting and emergency response.
- Access roads must provide safe and reliable emergency vehicle access to all infrastructure.
- Wherever practicable, at least two independent ingress and egress routes from different public roads must be provided to ensure safe evacuation and emergency response.
- Development must comply with State Planning Policy 3.7 - Planning in Bushfire Prone Areas and the WAPC Planning for Bushfire Guidelines (2024).
- A Bushfire Management Plan must be prepared and implemented to:
    - Address risk to people, property, and infrastructure;

- Specify mitigation measures during construction and operation; and
- Include ongoing management strategies, such as vegetation control, fuel reduction, and emergency response coordination.

- BESS facilities must address ignition risk of bushland from the infrastructure, fire suppression including sufficient availability of water or other suppression chemicals, containment of fire suppression water and emergency response procedures.

6.12 Fire and Hazard Management (BESS only)

- Battery Energy Storage Systems must be designed, sited, constructed and operated to minimise the risk of fire, thermal runaway, explosion, toxic smoke, chemical hazards and other associated hazard events.
- Applications for BESS must be accompanied by a comprehensive Risk Assessment and Fire Safety Study, prepared by suitably qualified fire safety experts, addressing:
  - Thermal runaway hazards and propagation risk across modules;
  - Potential for release of toxic or flammable gases, including hydrogen fluoride, carbon monoxide and other combustion by-products;
  - Explosion risk from energy dense cells under failure scenarios;
  - Emergency response, access, and fire suppression feasibility, including water, chemical or gas based suppression systems;
  - Coordination with local fire services and emergency management agencies;
  - Containment systems, fire rated enclosures, ventilation and spacing measures to prevent escalation.
- BESS design and installation must be consistent with recognised best practice, including:
  - UL 9540A testing for thermal runaway and fire propagation;
  - NFPA 855 Standard for Installation of Stationary Energy Storage Systems (or equivalent Australian engineering standards);
  - AFAC Fire Safety Guidance for Large-Scale BESS;
  - AS/NZS 5139 and AS/NZS 3000 for electrical and installation safety;
  - Any project-specific recommendations arising from peer-reviewed expert studies.

  In particular applications must demonstrate implementation of multiple layers of fire risk mitigation, including but not limited to:

- Fire detection, suppression and containment systems suitable for lithium-ion or other battery chemistries;
- Thermal management systems to prevent overheating and cascading failures;
- Emergency ventilation systems to safely disperse toxic smoke and gases;
- Physical separation and fire barriers between battery units;
- Safe access for emergency services and maintenance personnel.

- Separation distances from sensitive locations, dwellings, and other critical infrastructure must be informed by fire risk modelling and technical assessments, with a performance based approach to reduce risk while maintaining operational feasibility.
- Proposals must demonstrate that all residual risks are reduced to as low as reasonably practicable, with mitigation strategies and emergency management procedures formally documented.
- Applicants must prepare an Emergency Response and Management Plan, addressing:
  - Evacuation and isolation procedures for nearby sensitive locations;
  - Coordination with local fire and emergency services;
  - Response protocols for thermal runaway, fire, smoke and chemical releases;
  - Ongoing monitoring and maintenance procedures to reduce risk during operation.
- The Shire may require independent peer review of the risk assessment, fire safety study and emergency response and management plan at the applicant's cost. Approval will only be granted where the Shire is satisfied that all residual risks are appropriately mitigated and the proposal meets recognised best practice and fire standards.

6.12 Transport and Infrastructure

- Renewable energy facilities must be sited and designed to avoid or minimise impacts on existing transport infrastructure. Construction and operational access must not unreasonably degrade the structural integrity, safety or operation of the road network. Roads used for operation and maintenance must continue to meet safety and structural standards throughout the construction and life of the facility.
- Proposals must be supported by a Traffic Impact Assessment and a Road Condition Report to identify potential impacts and necessary road upgrades prior to construction. Where construction or operational activities impact the road

network the proponent is responsible for implementing all necessary repairs, upgrades or mitigation measures.

6.13 Electromagnetic Interference

- Renewable energy facilities must be sited, designed and operated to minimise electromagnetic interference with residential, commercial, and emergency communications. This includes television, radio, telecommunications networks, weather radar and other essential communications infrastructure.
- Where interference cannot be avoided, mitigation measures must be implemented to fully restore service and functionality at no cost to affected parties.

6.14 Construction Management

- Renewable energy facilities must be constructed in a manner that minimises impacts on surrounding land, communities and the environment. Construction must be managed through a comprehensive Construction Management Plan (CMP) that addresses construction phasing, traffic and access, dust, noise and vibration, waste management, erosion and sediment control, environmental management (including weeds, dieback, and water quality), working hours, emergency response and community engagement.
- The CMP must ensure construction activities are planned and implemented to avoid unreasonable disruption to surrounding communities and to maintain environmental values.

6.15 Decommissioning

- Renewable energy facilities must be decommissioned and removed in a manner that restores the site to a safe and environmentally appropriate condition suitable for its zoned purpose once the infrastructure ceases operation.
- A Decommissioning Plan must be submitted with the development application, demonstrating how all infrastructure (including turbines, panels, battery systems, cabling, poles, substations, access tracks and ancillary structures) will be removed and how disturbed land will be rehabilitated.
- The Decommissioning Plan must specify the methodology, timeframe, and standards for decommissioning and rehabilitation.
- Prior to the commencement of construction, the proponent must provide a financial assurance mechanism, acceptable to the Shire, to secure the full cost of implementing the approved Decommissioning Plan. Acceptable mechanisms include a bank guarantee or security bond in favour of the Shire which is valid and enforceable throughout the operational life of the facility and the period required to complete decommissioning works.

6.16 Community Benefit

- Renewable energy developments must provide a community benefit payment in accordance with the *Guideline on Community Benefits for Renewable Energy Projects* prepared by the State government.
- The community benefit commitment must be clearly documented as part of the development application and any formal agreement governing the payment or provision of benefits must be finalised prior to the commencement of construction.
- Community benefit arrangements should ensure that local residents and stakeholders or the local government on behalf of these receive direct or indirect benefits from the renewable energy project, consistent with the *Guideline on Community Benefits for Renewable Energy Projects*. The Shire of Murray should retain a decision making role over the allocation of community benefit contributions, drawing on its local knowledge of community needs and priorities.

7. Administration

Directorate	Officer Title
Planning and Sustainability	Director Planning and Sustainability

Version	Decision to Advertise	Decision to Adopt	Current Status
1	26/3/2026 (OCM26/016)	OCMXX/XX	Draft for advertising

Appendix 1 - Definitions

Battery energy storage system means the use of premises for the operation of one or more battery storage devices that:

a. convert electricity into stored energy; and

b. release stored energy as electricity; and

includes any equipment necessary for the operation of the plant.

Renewable energy facility/facilities means premises and structures used to generate electricity from a renewable source/s. It does not include renewable energy electricity generation where the electricity produced principally supplies and is incidental to an associated domestic, business or community related premises.

Scheme means the operative Shire of Murray Local Planning Scheme.

Sensitive location means a place where people live, gather, travel through or experience the landscape and where development may give rise to visual, noise, safety or other amenity impacts. Sensitive locations include, but are not limited to:

- existing dwellings and approved residential development;
- proposed residential, rural residential or rural living areas identified in an adopted structure plan, local planning scheme, local planning strategy or other approved statutory or strategic planning instrument;
- townsites and rural living areas;
- public spaces such as parks, reserves, foreshore areas, recreation areas and public open space;
- tourism destinations, scenic lookouts and heritage places open to the public;
- community facilities including schools, sporting facilities, public buildings and other community infrastructure; and
- major transport corridors where the landscape contributes to the experience of travelling through the area.

For the purposes of this policy, sensitive locations may include both publicly accessible places and privately owned land where people regularly live, work, or recreate.

Solar farm means a renewable energy facility that uses solar energy to generate electricity and includes ground-mounted photovoltaic and thermal technology and any associated infrastructure.

Wind farm means a renewable energy facility that uses wind energy to generate electricity and includes wind turbines and any associated infrastructure.

Wind turbine means a structure that incorporates a machine designed to convert wind energy into electricity and comprises a foundation, tower, nacelle and rotor. It does not include a wind mill, which uses wind energy to generate mechanical energy.

Appendix 2 – Plans

Figure 1 – Northern Jarrah Forest

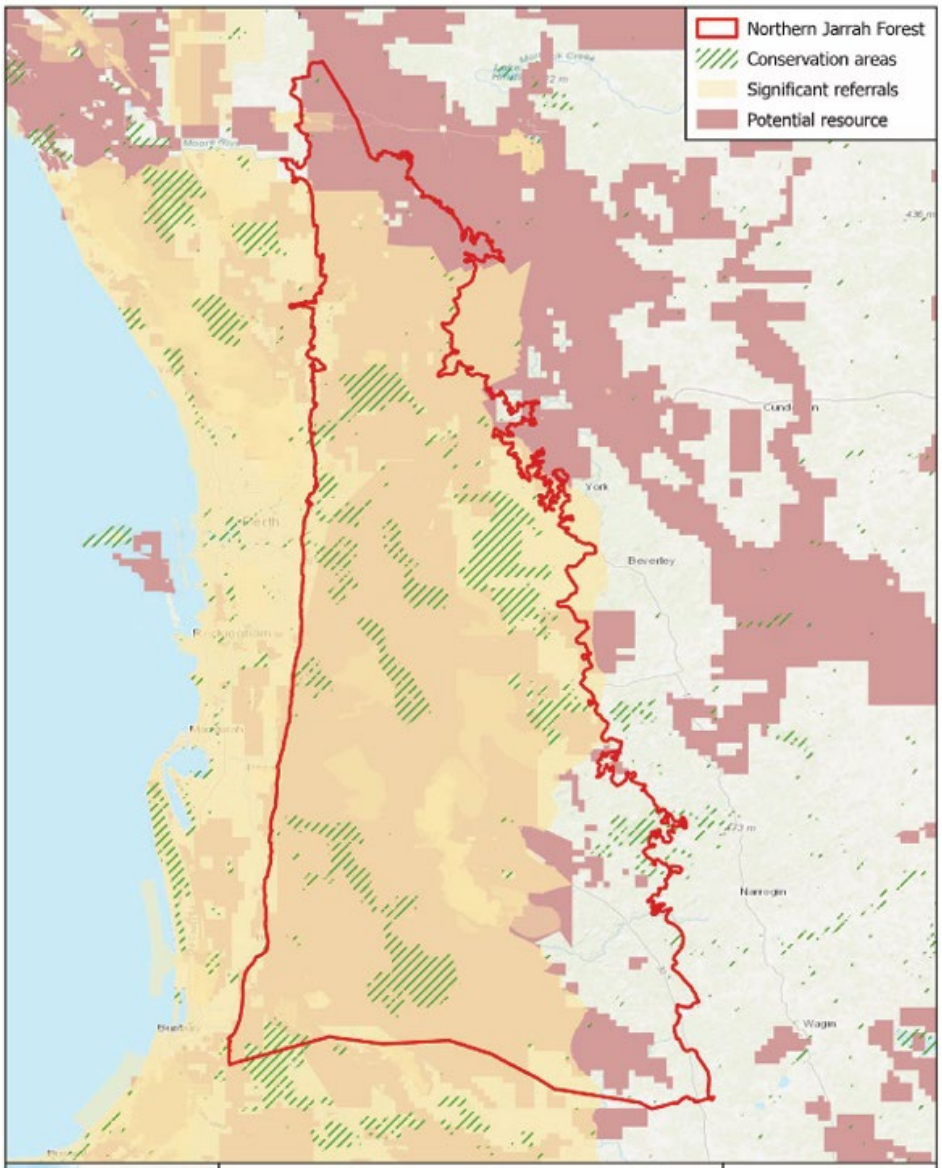

Figure 2 Peel Yalgorup Ramsar Site

Appendix 2 - Material to Accompany a Development Application – Renewable Energy Facilities

All Energy Infrastructure (including Wind, Solar, BESS, and Associated Infrastructure)

1. Outcomes from any pre-lodgement community and stakeholder engagement undertaken, including:

   a. Details of pre-lodgement engagement activities undertaken.

   b. Summary of information, plans, and images shared.

   c. Feedback received, including key issues raised.

   d. Explanation of how feedback has been considered or addressed.

2. Confirmation of servicing availability for any proposed habitable or operational buildings, including water, power, wastewater, and communications.

3. Details of the proposed transmission system and transmission line route to connect the renewable energy facility and/or battery energy storage system to the state electricity grid, including the status of connection approvals.

Wind Farms

Site Plan Details

1. A plan showing:

   a. Location and GPS coordinates for each wind turbine (where individual siting is confirmed) or GPS-defined boundaries of wind turbine envelopes.

   b. Setbacks of wind turbines and wind turbine envelopes from non-host lot boundaries, sensitive receptors, and reserves.

2. A plan showing the location, design, and depth of wind turbine foundations, underground electricity cabling, and other underground infrastructure.

3. A plan showing the location of any associated infrastructure, including substations, access roads, and monitoring towers.

Wind Turbine Specifications

1. Total number and characteristics of the wind turbines, including:
   a. Hub height
   b. Blade length and rotor diameter
   c. Maximum blade chord
   d. Blade tip height
   e. Ground clearance
   f. Rotor swept path
   g. Colours, materials, and finishes
   h. Noise-generation characteristics
   i. Aviation safety lighting

j. Transformer locations (inside or near tower)

Solar Farms

Site Plan Details

1. A plan showing:
   a. Location, extent, and layout of photovoltaic (PV) panels or concentrating solar power (CSP) arrays.
   b. Setbacks from sensitive receptors, dwellings, reserves, and future urban/rural living areas.
   c. Location of access tracks, substations, inverter stations, and ancillary infrastructure.
2. A plan showing the location and design of underground or aboveground electrical cabling and associated infrastructure.

Solar Farm Specifications

1. Total number and characteristics of panels, inverters, mounting structures, and tracking systems.
2. Colours, materials, and finishes of panels and associated structures.
3. Noise-generation characteristics (from inverters or ancillary equipment).
4. Height and design of fencing and security infrastructure.

Battery Energy Storage Systems (BESS)

Site Plan Details

1. A plan showing:
   a. Location and extent of battery modules, racks, containers, or enclosures.
   b. Setbacks from sensitive receptors, dwellings, reserves, and future urban/rural living areas.
   c. Location of access roads, fire suppression systems, substations, and ancillary infrastructure.
2. A plan showing the location of underground or aboveground electrical cabling, transformers, inverters, and control systems.

BESS Specifications

1. Battery type, chemistry, and energy storage capacity (MWh)
2. Module and rack configuration
3. Fire protection and suppression systems
4. Thermal management and ventilation systems
5. Emergency access and containment measures

6. Safety and monitoring systems

Reports and Plans (All Facilities)

1. Noise Impact Assessment
2. Single House Development Potential Impact Assessment (where relevant)
3. Landscape and Visual Impact Assessment
4. Shadow Flicker Assessment (wind turbines only)
5. Environmental Report
6. Bird and Bat Management Plan (wind turbines and solar farms where relevant)
7. Water Management Report
8. Bushfire Attack Level (BAL) Contour Map
9. Bushfire Management Plan (including BESS fire risk mitigation)
10. Coastal Hazard Risk Management and Adaptation Plan (where relevant)
11. Geotechnical Assessment (where relevant)
12. Aviation Impact Assessment (wind turbines only)
13. Electromagnetic Interference Assessment (where relevant)
14. Transport Impact Assessment
15. Construction and Environmental Management Plan (CEMP)
16. Preliminary Decommissioning and Rehabilitation Management Plan
17. BESS specific Risk Assessment and Fire Safety Study
18. Emergency Response and Management Plan (ERMP) for BESS
19. Technical Assessment of Separation Distances from sensitive receptors, dwellings, and critical infrastructure (BESS, solar, wind)