D11 - Local Planning Policy – Wind Farm/Turbines

History:	Adopted 27 March 2024 (Resolution No. 270324.02)
Statutory context	Shire of Narrogin Local Planning Scheme No 3 (LPS 3) Planning and Development Act 2005 Planning and Development (Local Planning Schemes) Regulations 2015(Regulations) DPLH Position Statement: Renewable energy facilities (March 2020)

Background

This local planning policy is formulated within the framework of the Shire of Narrogin Local Planning Scheme No. 3, guided by the Planning and Development Act 2005 and the Planning and Development (Local Planning Schemes) Regulations 2015. It aims to provide clear guidelines for the establishment and operation of wind farms and turbines within the Shire of Narrogin while adhering to legislative requirements.

Wind energy represents a clean and sustainable source of power, contributing to the reduction of greenhouse gas emissions. In recognising the potential benefits of wind farms and turbines, the Shire of Narrogin acknowledges the need to strike a balance between promoting renewable energy and safeguarding the interests and well-being of the community.

Purpose

The purpose of this policy is to provide a framework for the assessment, approval, and regulation of wind farms and turbines within the Shire of Narrogin. This policy seeks to ensure that any proposed wind energy projects are developed in a manner that minimises negative impacts and maximises the benefits to the community and the environment.

Policy Basis

This Policy has been prepared in accordance with the Planning and Development (Local Planning Schemes) Regulations 2015 Deemed provisions Schedule 2 Part 2 Division 2 – Local Planning Policies. This Policy may be cited as Local Planning Policy No. D11 – Wind Farm/Turbines.

The Policy does not bind the local government in respect of any application for development approval, but the local government is to have due regard to the provisions of this Policy and the objectives which the Policy is designed to achieve before making its determination.

Objective

The objectives of the Wind farms/Turbines Local Planning Policy are:

- To promote the responsible development of wind farms and turbines, supporting renewable energy generation within the Shire;
- To protect the health, safety, and amenities of the community and the environment;
- To provide clear guidelines for assessing and approving wind energy projects;
- To facilitate community consultation and engagement throughout the development process;
- To address potential impacts, including environmental, visual and landscape, noise, and other relevant factors; and
- To set out minimum standards and requirements.

Definitions

Renewable Energy Facility:

The Shire of Narrogin Local Planning Scheme No 3 defines Renewable Energy Facility as – *Premises used to generate energy from a renewable energy source and includes any buildings or other structure*

used in, or relating to, the generation of energy by a renewable source. It does not include renewable energy electricity generation where the energy produced principally supplies a domestic and/or business premises and any on selling to the grid is secondary.

Sensitive Land Use:

Means land uses that are residential or institutional in nature where people live or regularly spend extended periods of time. These include, but are not limited to dwellings, short stay accommodation, hospitals, educational establishments, childcare centres, corrective institutions and places of worship.

Shadow Flicker:

This is a result of the sun's position in relation to the wind turbine blades as they rotate. This occurs under certain combinations of geographical position and time of day. The seasonal duration of this effect can be calculated from the machine's geometry and the site's latitude. Shadow Flicker can be modelled in advance and siting and design can mitigate the problem. This is more likely to be an issue for turbines located to the east or west of a dwelling.

Acoustic Consultant:

A person who meets all of the following criteria:

- holds a tertiary academic qualification that can be applied to the field of acoustics and the measurement and management of environmental noise.
- Has a minimum of three years of experience working in the field of acoustics and the measurement and management of environmental noise.
- holds membership of grade Member or Fellow in the Australian Acoustical Society or membership of the Association of Australasian Acoustical Consultants, or international equivalent.

Policy Provisions

General Requirements

In accordance with the Shire of Narrogin Local Planning Scheme No. 3, ''Renewable Energy Facility" is listed as an "A" use under "Rural" and "General Industry" zones, which is defined as:

"Means that the use is not permitted unless the local government has exercised its discretion by granting development approval after advertising the application in accordance with clause 64 of the deemed provisions."

Planning Approval is required for all Wind Farms/Turbines under the respective zones. In addition to the completed application form and relevant fee, applicants must submit a location plan, site plan, elevations and manufacturer's specifications, decommissioning and end of life plan, and details demonstrating compliance with the Shire of Narrogin Local Planning Scheme No. 3 and relevant legislation including the Environmental Protection (Noise) Regulations 1997.

Applications for Wind Turbines located on properties/buildings identified on the Shire's Heritage List or Municipal Inventory of Heritage Places, will require submission of written justification by a suitably qualified person (e.g. a qualified Heritage Advisor), unless determined otherwise by the Shire's Planning Services in consultation with the State Heritage Office.

Wind farms and turbines shall be sited and designed to minimise adverse impacts on the environment and the community, based on best industry standards.

Adequate setbacks and safety measures shall be incorporated to protect public health and safety against major breakdown of, or incidents at, the wind turbine generator and associated infrastructure.

The minimum recommended setback from property boundaries shall be a minimum of 3 times the total height of the structure including, the propellor blades at the highest point or 500 metres, whichever is greater.

Decommissioning plans must be submitted and approved as part of the development application demonstrating principles of recycling, repurposing and rehabilitation. This should include the following:

1. Life Cycle Reusability Assessment:
    - Proponents must provide a comprehensive plan demonstrating the purposeful and sustainable reuse of engineering structures and concrete footings at the end of their useful life.
    - Examples of demonstrable suggestions for useful lives, specifically for masts, blades, and infrastructure, based on the design life cycle, should be included.
2. Financial Responsibility for End-of-Life Measures:
    - Proponents are required to predict and finance the costs associated with ensuring a sustainable end product at the conclusion of the wind farm's life cycle.
    - Options for financing include:
        a. Costs borne by the landowner.
        b. Establishment of a sinking fund.
        c. Creation of a protected, cash-backed asset, serving as a condition on the land with obligations passed on to successive landowners.
3. Protection Against Financial Instability:
    - Proponents must address potential risks associated with the longevity of companies involved in wind farm development.
    - Mechanisms should be in place to ensure that finances for the removal of infrastructure remain secure even if the original company ceases to exist or lacks sufficient funds.
4. Compliance and Monitoring:
    - Ongoing monitoring will be conducted to ensure compliance with the sustainable end-of-life measures outlined in the proposal.
    - Non-compliance may result in penalties and revocation of development approvals.
5. Community Engagement:
    - Proponents are encouraged to engage with the local community to address concerns and provide transparency regarding the sustainable practices adopted.

Developers are also required to include a Site Rehabilitation Plan detailing the steps for future decommissioning of facilities. The plan should consider the impact of buried cables and turbine foundations on seeding depth and crop/pasture root potential. Decommissioning to "normal deep ripping depth" to ensure adequate depth for breaking up compacted soil layers in the future.

Community and Stakeholder Consultation

Developers must actively engage in meaningful community and stakeholder consultation prior to lodgment of any formal development application, ensuring that residents and stakeholders are informed and have opportunities to provide feedback. Consultation shall include public meetings, information sessions, and other appropriate methods to engage with the community. It is also encouraged for the developer to make reference to the "*Guide to Best Practice Planning Engagement in Western Australia (2023)*", published by DPLH, when implementing Community Consultation.

Developers should also liaise with relevant key stakeholders early in the process, including the Shire, Main Roads WA, Western Power, Civil Aviation Safety Authority (CASA), Air Services Australia, Royal Flying Doctor Service (RFDS), Department of Fire and Emergency Services (DFES), Department of Planning, Lands and Heritage (DPLH), Department of Water and Environmental Regulation (DWER), Department of Biodiversity, Conservation and Attractions (DBCA), Department of Primary Industries

and Regional Development (DPIRD), Environmental Protection Authority (EPA), Local aerial spraying contractors, unlicenced airstrip owners (within a 5km radius of a turbine) and any relevant incorporated local aeronautical associations.

The outcome of the Community and Stakeholder Consultation should be included in the lodgement of a detailed Community and Stakeholder Engagement Plan outlining the outcomes of the pre-lodgement Community and Stakeholder consultation.

Community Enhancement Fund

The NSW Office of Environment and Heritage underscores the significance of integrating benefit sharing mechanisms into wind energy projects to cultivate widespread community support. In their report titled 'Strategic Options for delivering ownership and benefit models for wind farms in NSW,' it is highlighted that projects offering such mechanisms are more likely to garner backing from various stakeholders, including businesses, community groups, landowners, and neighbours. By demonstrating long-term benefits during the consultation phase, particularly those that extend broadly to the community, proponents can foster greater acceptance, support and cooperation. One effective approach involves establishing a 'Community Enhancement Fund' (CEF) in collaboration with local government to enhance the liveability and sustainability of the Shire and its Towns.

This could encompass initiatives in;

- Arts and Culture (including Public Art, Sculptures & Murals);
- Community and Recreational Infrastructure;
- Tourism Facilities; and
- Recreational Reserves and Activation.

A recommended best practice approach entails initiating early engagement with the local government to devise a thematic approach (such as listed above) for community enhancement projects, facilitated through an annual competitive grant round funded by a percentage of the Construction Investment Value (CIV) over the project's operating life. For instance, a suggested percentage could be calculated by dividing the initial CIV by the accepted operating life, then multiplying by 1.5%. For instance, a wind energy facility with a construction cost of $200,000,000 may allocate $100,000 annually to the CEF over a 30-year period.

Additionally, consideration could be given to investing part or all of the CEF into initiatives aimed at reducing energy costs for the community, thereby furthering the project's positive impact. Projects that demonstrate outcomes from their Community and Stakeholder Consultation such as that listed above, together with how local business could benefit and how ‘buy local’ will be implemented, where reasonable and practical to do so, will be highly regarded.

In exchange for contributing to a CEF as outlined, the Shire of Narrogin will enter into an agreement with the proponent. This agreement provides clarity and surety to the proponent for budgeting purposes for the life of the project, protects the landowner from unintended or foreseen consequences and potentially eroding the sustainability of the agricultural entity, and entails the local government refraining from seeking rating of the wind farm, its turbines, or associated infrastructure based on gross rental value under Section 6.28 of the Local Government Act 1995.

Instead, revenues from the CEF will be allocated to the proposed initiatives for the betterment of the community. This agreement also ensures that the current landowner is not unfairly affected by subsequent additional rating measures. However, it acknowledges that the wind farm activity will have ongoing adverse effects on civic infrastructure throughout the project's lifespan, leading to increased costs for the local government. These costs include expenses related to road construction, repairs, and sourcing materials like gravel, as well as increased regulatory compliance and monitoring associated with perceived or real noise and environmental impacts, not normally associated with traditional rural or general agricultural pursuits.

Environmental Impact

A comprehensive environmental impact assessment by suitably qualified environmental consultants (independent of the developer), including flora and fauna studies, shall be conducted and submitted as part of the development application. Consideration is required of environmental impacts both during the construction and operational stages of the development.

Developers must implement measures to mitigate and manage potential environmental impacts, including habitat protection and rehabilitation, such as:

- Stopover sites, local bird species roosting and nesting sites for birds of conservation significance;
- Location of bird of conservation significance colonies;
- Areas of high raptor activity;
- Livestock disturbance; and
- The accumulative impact of wind turbines on migration routes.

Developers are to submit a management plan on biosecurity management plan to ensure all excavation equipment/drilling rigs and the likes are thoroughly cleaned and free from any soil/plant material prior to leaving paddocks and especially moving from property to property.

Visual and Landscape Impact

Wind farms and turbines shall be designed to integrate to the greatest extent possible into the natural and rural landscape setting. A visual and Landscape Impact Assessment is required that addresses the following:

- landscape significance and sensitivity to change, site earthworks, topography, the extent and type of vegetation, clearing and rehabilitation areas, land use patterns, built form character, public amenity and community values.
- likely impact on views including the visibility of the facility using view shed analysis and simulations of views from significant viewing locations including residential areas, major scenic drives and lookouts.
- layout of the facility including the number, height, scale, spacing, colour, surface reflectivity and design of components, including any ancillary buildings, signage, access roads, and incidental facilities.
- measures proposed to minimise unwanted, unacceptable or adverse visual impacts.

It is also recommended that the developer include reference to the WAPC Visual Landscape Planning Manual, and the Wind farm and Landscape Values (2005) published by the Western Australian Wind Energy Association and Australian Council of National Trust.

Noise Impact

Wind turbines shall be designed and operated to minimise noise emissions.

A noise impact assessment, including infrasound and ground vibration, to be completed by an acoustic consultant, shall be prepared demonstrating compliance with the Environmental Protection (Noise) Regulations 1997 for both construction and operational phases. The noise impact assessment is to have due regard to future land uses.

Regardless of the noise impact assessment, which may determine turbines should be located further away from noise sensitive premises, it is required that any wind farm/turbine be located ***a minimum*** of 2.0 kilometres or 10 times the height of the structure, at its highest point inclusive of the blade, whichever is the greater, from any dwelling or sensitive land use, unless a written agreement is entered into with impacted landowners prior to construction of the structure and a notification to that effect is imposed on the title of that lot or location.

The Environmental Noise Branch section of the Department of Water and Environmental Regulation recommend an alternative noise criterion of 40dBLA10, whichever is the greater or the applicable LA10 assigned noise level, to be achieved at those residences associated with the project (accommodation for wind farm staff, or caretaker residence).

In order to accurately assess noise levels from wind turbines, measurements shall be taken from the

extremity or tip of the blade of the wind turbine in its horizontal position, which is closest to the noise-sensitive premise being measured against or for. It is acknowledged that the head of the turbine rotates with wind direction, and consequently, the blades themselves, depending on their length, may extend up to 100 metres closer to the noise-impacted premise that the structure. This approach ensures that noise measurements capture the most relevant and representative data regarding potential impacts on nearby premises.

Noise impact measurements, conducted over a minimum period as defined by relevant standards, must consider atmospheric and climatic conditions that promote noise transmission, particularly during times typically experienced at the location. This includes early morning periods, low wind conditions, and early morning fog, all of which can amplify noise transmission. Additionally, seasonal or prevailing winds that may enhance noise transmission towards the relevant premise must also be taken into account during the assessment.

Safe Work Zone

Developers must provide the local government with a copy of any safe work method statement relating to the operation of the proposed turbines for when they are operational. This information will assist in evaluating and determining any setback from boundaries and additionally any adverse potential impact on adjoining landowners and neighbours, who are entitled to full enjoyment of maintaining and improving their property at all times, unless a written agreement with that landowner states otherwise.

Tourism

Developers are to consider the impact of tourism traffic and the risk of traffic congestion or vehicle accidents by providing a suitable viewing platform or pull off bays with appropriate interpretation and signage and to liaise with the Shire of Narrogin and / or Main Roads WA on suitable and agreed location(s).

Bushfire

Developers are to provide a Bushfire Management Plan for areas that fall within the Bushfire Prone Area. Reference should be made to *State Planning Policy 3.7 – Planning in Bushfire Prone Areas* (SPP 3.7). It is also recommended that the developer review the Victorian Country Fire Associations document - Design Guidelines and Model Requirements for Renewable Energy Facilities v4 (2023), as this document provides a best practice approach to considering bushfire risk and fire safety measures in the design, construction and operation of renewable energy facilities (including windfarms).

Other Potential Impacts

Developers must assess and address any other potential impacts, such as electromagnetic interference to mobile telephones, radio reception and television reception or shadow flicker.

All potential impacts that are identified shall be mitigated to the greatest extent possible by the developer, to protect the interests of the community.

Developers are required to take into consideration the Narrogin Airport and the Airport Master Plan's future planning, when developing wind farm/turbines within close proximity to the area, so as not to impact the operation and activities of the Airport users including any aeronautical, gliding and flying associations operating within the Shire. Consultation with relevant government authorities and airport operators will be required.

Developers of wind turbine proposals should refer to the National Aviation Safeguarding Framework (NASF) Guideline D: Managing the Risk to Aviation Safety of Wind Turbine Installations (Wind Farms) / Wind Monitoring Towers to determine any potential aviation safety risks and possible mitigation measures. Any potential aviation safety risks identified require consultation with the Civil Aviation Safety Authority (CASA), Air Services Australia and/or the Commonwealth Department of Defence.

The NSAF guideline identifies consultation with unlicensed airstrip owners and CASA/Air Services. CASA

has released an advisory circular AC 139.E-05v1.1 Obstacles (including wind farms) outside the vicinity of a CASA certified aerodrome.

All wind farm and turbine developments must adhere to and comply with the regulations, specifications, and requirements outlined by the Civil Aviation Safety Authority (CASA), as though the Narrogin Airport and Airstrips were registered. This ensures that the development does not impede the potential future upgrade of the Narrogin Airport from its current unregistered CASA uncertified status to that of a Registered CASA certified Airport.

Consultation with relevant government authorities and airport operators will be required.

Wind farm proposals should not have a negative impact through interference with normal agricultural or farming activities of nearby rural properties, such as aerial spraying. An aviation assessment by a suitable qualified aviation consultant will be required to demonstrate turbines will not impact on aerial spraying activities of surrounding farms or unlicensed airstrips unless a written agreement with the impacted landowner is provided.

Developers are required to provide a surface water management plan, incorporating appropriate design methods to manage water erosion from intense summer or winter rainfall events.

This local planning policy on Wind Farms/Turbines is designed to guide future development while ensuring the preservation of the Shire of Narrogin's unique character and the well-being of its residents. Developers and relevant authorities are encouraged to adhere to these guidelines for the responsible and sustainable development of wind energy projects within the Shire.

Road Contributions for Wind Energy Facility Developments

The Shire of Narrogin recognises that the development of wind energy facilities may have significant impacts on the condition and serviceability of the local road network, especially during the construction phase. The Shire of Narrogin requires proponents of wind energy facilities to be assessed for any road contributions for repairs or upgrades to sealed and/or unsealed roads managed by the Shire of Narrogin as a result of construction or ongoing activities associated with the development beyond those considered normal day to day access and egress.

Reference should be made to the WAPC Transport Assessment Guidelines. The Traffic Assessment should consider:

- Operation and Maintenance Agreements to Access State Road Network – Main Roads Western Australia.
- Route Assessments for the transport of dangerous goods on road network.
- A traffic management plan in conjunction with an application for a permit that requires vehicle and machinery access and movement for Restricted Access Vehicles shall be submitted for approval to the satisfaction of Heavy Vehicle Services – Main Roads Western Australia. (e.g., Transport of large wind turbine blades and towers).

The Developer will be responsible for:

- Preparation of a pre-development ‘’Road and Shire infrastructure condition’’ report, that identifies and records the conditions of any local roads and the Shire Infrastructure that will be affected by any route for heavy vehicles and delivery trucks needed for the construction phase;
- The costs associated with any damage caused to the roads or Shire infrastructure attributed to the construction phase of the development. Any damage shall be rectified by the developer to the standard identified in the pre-lodgment ‘’Road and Shire Infrastructure Condition’’ report.
- All costs of any upgrading required for construction transport routes and/or the development.

The road contributions will be calculated based on the Western Australia Local Government Association’s (WALGA) Heavy Vehicle Cost Recovery Policy Guideline for Sealed Roads, which provides a fair and transparent method for determining the additional maintenance and reconstruction costs attributable to the increased heavy vehicle traffic generated by the wind energy facility

development. Any contributions need to be consistent with the principles that underpin the State Planning Policy 3.6 – Infrastructure Contributions.

The road contributions will be negotiated and agreed upon between the Shire of Narrogin and the developer prior to the approval of the development application. The road contributions will be paid by the developer to the Shire of Narrogin in accordance with the terms and conditions of the agreement. The Shire of Narrogin will use the road contributions to fund the necessary road works to maintain and improve the safety and functionality of the local road network.

No works can occur within a State Road Reserve without Main Roads approval.

– End of Policy