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The Chief Executive Officer
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RE: Application for Development Approval - Meteorological Mast

Lightsource Development Services Australia (Lightsource bp) is seeking Development Approval under the Shire of Narrogin's *Local Planning Scheme No. 3* (LPS No. 3) (the Scheme) to install and operate a temporary Meteorological Mast (Met Mast) at one of two proposed locations more than 15km northeast of the town of Narrogin. Only one Met Mast will be installed at any given time.

The purpose of installing a Met Mast is to monitor wind and irradiation conditions at the site in favour of the potential development of a hybrid renewable energy generation facility, including wind generation, solar and energy storage (collectively, the Project). The potential Project will support the West Australian State Government's legislated Net Zero target by 2050 under the Climate Change Bill (2023) by adding to the stock of sustainable, affordable and reliable energy sources.

This application letter and supporting documents:

- Identifies potential sites for the installation.
- Provides a justification for the Met Mast installation.
- Explains the process of constructing, operating and decommissioning the Met Mast.
- Outlines the studies taken to date.
- Considers the proposed Met Mast against the West Australian planning framework and requirements of the Shire of Narrogin LPS No. 3.

1.0 Subject Site and Location

The two locations for the Met Mast, referred to as Met Mast East and Met Mast Central, are proposed within land parcels formally described in **Table 1.1** and shown in **Figure 1 and 2**. Both locations will be used over the course of two years to assess the wind speed across the region. Only one Met Mast will be installed at any one time and will be in place for approximately one year before being relocated to the alternative location.

Both Met Mast locations are located more than 14km (Met Mast Central) and more than 20km (Met Mast East) northeast of the town of Narrogin. Met Mast Central is located approximately 3.9km southeast of the main road, Williams-Kondinin Road and is well setback more than 1.5km from the nearest local roads, Hilders Road and Murramucking Road. Subject site is largely cleared farmland featuring dense patches of woodland throughout the property, which serve as natural screening and a well vegetated backdrop for the Met Mast when viewed from the north, east and south. No rural residence has been identified within a 2.0km radius of this proposed location.

The subject site for Met Mast East is located similarly on cleared farmland adjacent extensive areas of bushland approximately 1.2km south of Williams-Kondinin Road and 1.4km east of Taylors Road. The Ockley Nature Reserve is approximately 1.1km directly east of this location. The nearest rural residence is approximately 1.8km west of the proposed Met Mast East location, adjacent two other

rural dwellings near the Williams-Kondinin Road. Substantial natural screening of the Met Mast is available from dense vegetation within the subject lot as well as heavily vegetated woodland along Taylors Road, interrupting views of the structure from the nearest rural residences. Views of the proposed Met Mast from main and local roads will largely be screened by mature roadside vegetation as well as extensive bushland areas such as the Ockley Nature Reserve.

Table 1.1: Proposed location details

Location Reference	Land Parcel	Certificate of Title
Met Mast Central	Lot 14816 on DP205933	LOT 14816 ON DEPOSITED PLAN 205933 Volume LR3137 Folio 619
Met Mast East	Lot 15482 on DP171405	LOT 15482 ON DEPOSITED PLAN 171405 Volume 405 Folio 75A

Refer to copies of Title at **Appendix A** and Landowners’ consent at **Appendix B**.

The proposed met masts are in open fields and are located well away from any public receptors - the closest public road is over 1km to the north of Met Mast East (Met Mast Central is over 3km from the nearest public road), whilst the closest residence to either proposed location is over 1.8km away (Met Mast East).

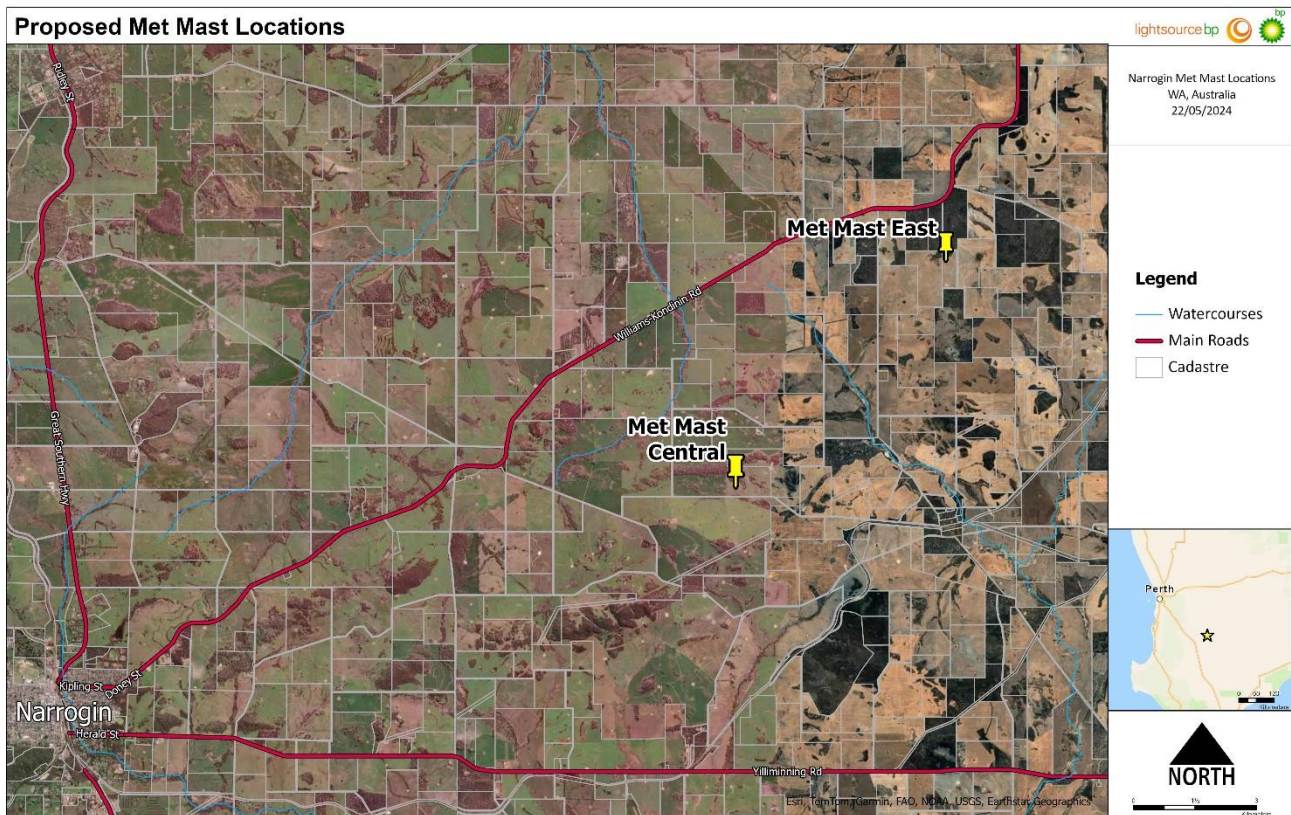


Figure 1: Proposed Met Mast Location(s) – Regional Context

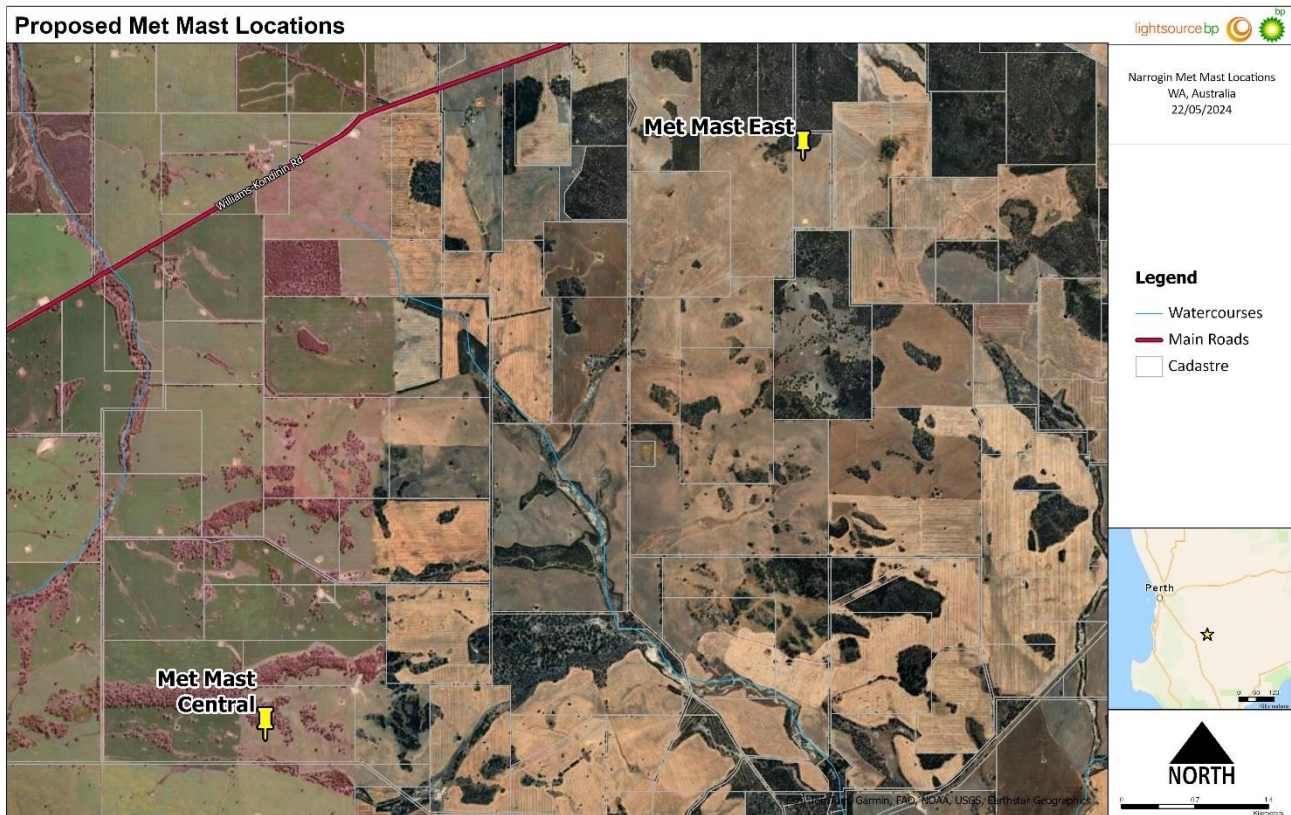


Figure 2: Proposed Met Mast Location(s) – Local Context

2.0 Proposed Development

The principal role of the Met Mast is to record site-based weather data to assist with wind and solar yield estimates for renewable energy projects. Data is collected predominantly via a series of anemometers and wind vanes located at intervals along the Met Mast. Additional sensors that may be installed along the Met Mast include pyranometers (measuring solar irradiation), temperature and pressure sensors. Compiling the data will be data logger and wireless communications kits to transfer the data to cloud storage as well as a hard backup.

The proposed Met Mast will be of a slimline steel lattice design up to 160m high supported by guy wires. Details for the 160m Met Mast is provided in the general arrangement in **Appendix C**. Guy wires supporting the structure will terminate at nine anchor footings, with the furthest footing being 120m from the base of the Met Mast. A general configuration for the guy wires is provided in **Appendix D**. The mast and guy wires will be fixed to the ground by ten concrete footings (nine for the guy wires and one for the Met Mast). Footing schedules are provided in the foundation design in **Appendix E**. The mast is intended to be temporary for up to two years and consist of:

- A steel lattice framework
- Mounting boom for meteorological monitoring equipment
- Guy-fixing system (including anchor footings and guy wires)
- Data and electrical cabling
- Potential bushfire detection camera

The Met Mast construction takes place with 4WD Utes and trailers, a 20-30 tonne excavator, and deliveries of concrete and the lattice structure by truck to install the foundations for the mast. A 3 – 4-man crew will use a derrick pole and winch to section the mast up to

the target height, individual anemometers and other measurement devices will be installed by hand using a capstan winch. In total, site works is expected to take between 2 - 4 weeks depending on weather and site conditions.

Construction activities at the two locations will be limited to installation and maintenance, should it be required. Minimal excavation of a 1.6m x 1.6m foundation of up to 1.2m depth is required to install the guyed mast base. No new access or permanent access roads will be created as part of the installation. No clearing of native vegetation or crossing of watercourses will be required for the Met Mast construction. Once installed, the Met Mast will be remotely operated.

Lightsource bp is also investigating the addition of Bushfire detection cameras, capable of remotely identifying signs of bushfire ignition using AI technology and reporting locations and magnitudes to the relevant authorities.

All works are conducted to AS/NZ standards of earthing system design and will comply with (AS/NZS 1768-2021 Cl 3.5.3), and anchor foundations (AS/NZS 1768-2021).

The Met Mast will be unmanned during operation with only periodic maintenance requiring site access. Upon completion of the weather monitoring program, the Met Mast will be deconstructed, and foundations removed and backfilled using similar equipment for installation.

The Met Mast is of a slimline lattice design and will be similar in appearance to the Met Masts already established in Narrogin, and elsewhere in the WA region as shown in **Plate 1.1**.



Plate 1.1: Met Mast in the Shire of Narrogin from public viewpoints at 1.0km (left) and 250m (right). Image taken 11th May, 2024

3.0 Pre-submission Consultation

Lightsource bp has undertaken limited consultation with government stakeholders and landowners as it is in the early phase of investigating the region’s wind resource potential to inform the feasibility of a wind farm development in the area. Broad engagement with nearby landowners, key stakeholders and the local community will be undertaken should the hybrid renewable energy project, including a wind farm continues. Stakeholder engagement to date is outlined in **Table 3.1**.

Table 3.1 Consultation summary

Stakeholder	Engagement outcome
Shire of Narrogin	The Shire was introduced to the Project in a meeting in February 2024 and was notified on Lightsource bp’s intention to lodge a development application for a Met Mast. A pre-lodgement meeting for the Met Mast was held between the Shire and Lightsource bp.
Landowner	Owners of the land where the Met Mast is proposed has granted consent and supports the development application.

Western Power	Western Power was consulted on the Met Mast that is proposed approximately 1km from an existing high voltage powerline. No concerns were raised, and further consultation was not required due to the distance from the powerline.
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4.0 Planning Considerations

Relevant aspects of the Western Australian planning framework have been considered as part of the proposal and to support this development application. Alignment of the proposal with relevant aspects of the State’s planning policy, the Shire’s recently adopted Wind Energy Facilities (WEF) policy and objectives of the planning scheme are outlined in the following section.

4.1 Shire of Narrogin Local Planning Scheme No. 3

An assessment of the proposed elements against the General Development Requirements of the LPS No. 3 is outlined in **Table 4.1**.

Table 4.1 Proposed Alignment with General Development Requirements (Part 4, LPS No. 3)

General Development Requirements	Proposed Alignment
Carparking	The development will not require dedicated parking onsite or offsite during construction or operations, there is sufficient space on the property to accommodate vehicles during the installation.
Site Access	Site access will be via existing road entry points utilising internal access tracks to deliver and construct the Met Mast. No new access roads or site entrance will be created as a result of the installation. Existing site accesses will be used for maintenance.

4.1.1 Land use and zoning

The properties listed in **Table 1.1** are located on land zoned as ‘Rural’ under the Shire’s LPS No. 3.

The proposed development (meteorological mast) is classified as a land ‘use not listed’ under Table 3 of the Scheme. It is expected the development proposal will be assessed against the planning controls and objectives of the Rural zone. An assessment of the proposal against the relevant section of the Rural zone objectives are provided in **Table 4.2**.

Table 4.2 Proposed Alignment with Objectives of the Rural Zone (Part 3, LPS No. 3)

Objective	Proposed Alignment
To provide for the maintenance or enhancement of specific local rural character.	The proposed development will not detract from the rural character of the local area. Both proposed locations are well setback more than 1km (Met Mast East) and 3km (Met Mast Central) from the nearest main road. The Met Mast once installed will have a low level of visibility and limited visual impact on the rural landscape due to the slimline, lightweight, and semi-transparent lattice design. Visual impact from the Met Mast will be minimal.
To protect broad acre agricultural activities such as cropping and grazing and intensive uses such as horticulture as primary uses, with other rural pursuits and rural industries as secondary uses in circumstances where they demonstrate compatibility with the primary use.	The proposed Met Mast will be temporary and will not significantly impact or decrease the area for agricultural land. The small development footprint is a very small percentage of the subject land parcel and is only temporary in nature. The proposed development will not limit other rural pursuits or prevent primary use of the land for agricultural and grazing activities in the area. The Met Mast can be considered generally compatible with the existing and surrounding rural land use.
To maintain and enhance the environmental qualities of the landscape, vegetation, soils and water bodies, to protect sensitive areas especially the natural valley and watercourse systems from damage.	Proposed activities are located on cleared farmland and will not result in any direct impact to environmental values in the area such as native vegetation and watercourses or water bodies. No native vegetation clearing is required for the construction of the Met Mast nor the use of local water sources. Construction and maintenance activities will utilise existing site accesses and roads within the site to limit impacts to undisturbed areas.
To provide for the operation and development of existing, future, and potential rural land uses by	The proposed installation is not a sensitive land use and can be considered wholly compatible with the existing and future land use for rural purposes. The Met Mast once installed, is temporary and remotely operated, and will

limiting the introduction of sensitive land uses in the Rural zone.	require limited maintenance that will not restrict current and ongoing rural uses of the land.
To provide for a range of non-rural land uses where they have demonstrated benefit and are compatible with surrounding rural uses.	The proposal aligns with this objective by seeking to explore wind resource and renewable energy potential for the area that will have a long term and sustainable benefit for the local Narrogin community, as well as the broader Wheatbelt region. The Met Mast proposal is generally considered compatible with surrounding rural uses as it is temporary and will have no significant impact on the existing use of the land or adjacent land for rural purposes.

4.1.2 Local Planning Policy No. D11 – Wind Farm/Turbines (Shire of Narrogin, 2024)

Council adopted a Local Planning Policy on Wind Farm/Turbines (the Wind Energy Facilities (WEF) policy) in March 2024. The policy provides a framework for the assessment and regulation of wind farms and turbines in the Shire. It seeks to ensure that any wind energy projects will be developed to maximise community and environmental benefit and to minimise negative impacts associated with such developments. Whilst this application is for a Met Mast only (and does not on its own constitute a wind farm), given the intent of the Met Mast is to inform the feasibility of future wind energy generation, **Table 4.3** summarises how the proposal have considered and have sought to align with these policies.

Table 4.3 Proposed Alignment with Local Planning Policy No. D11 – Wind Farm/Turbines

Policy objective	Proposed Alignment
<p>Objectives of the WEF Policy are:</p> <ul style="list-style-type: none"> To promote the responsible development of wind farms and turbines, supporting renewable energy generation within the Shire. To protect the health, safety, and amenity 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. To set out minimum standards and requirements. 	<p>The proposal aligns with the promotion of renewable energy development in the Shire by proposing to install a Met Mast to monitor wind resource in the region as part of the first step of a potential hybrid wind energy project, which is subject to a future and separate development application. Preliminary planning, environmental, cultural and heritage constraints assessment, including an aviation safety study has been completed to inform the placement of the Met Mast and future design of a potential wind farm. The proposed Met Mast is a temporary structure, and any potential impact will be negligible and only for a short term. No clearing of native vegetation is required, and the installation is not expected to have any significant visual impact to the surrounding landscape. As described in Section 2.0, Lightsource bp have held discussions with involved landholders and the Shire of Narrogin. Further consultation with the community will be undertaken should the broader wind energy project continues. While the WEF policy is not applicable to this proposal, the development of a Met Mast enables and generally supports the policy’s wind development objectives.</p>

4.2 State Planning Policy 2.5: Rural Planning (WAPC, 2016)

State Planning Policy 2.5: rural planning (SPP 2.5) governs planning decision-making for rural land in Western Australia and is to be considered as part of the Shire’s LPS No. 3 for development proposals in rural zoned land. A summary of the SPP 2.5 and how the Met Mast proposal considers this State Policy is described in **Table 4.4**.

Table 4.4 Proposed Alignment with State Policy 2.5

Policy consideration	Proposed Alignment
<p>SPP 2.5 aims to protect and preserve WA’s rural land assets and recognises demands on economic and population growth will increase the pressure on rural land through competing and other uses. The policy seeks to promote economic growth while acknowledging the need to balance economic opportunities with the protection of natural assets and rural land uses. Relevant policy measures include retaining land identified as priority agricultural land, and retaining and protecting rural</p>	<p>As described in Table 4.2, the Met Mast can be considered a compatible use on rural land as it occupies a very small portion of the overall land parcel and due to the small development footprint, will not decrease the use of agricultural land. The Met Mast construction will not require the clearing of native vegetation nor impact on important environmental values such as water resources. Visual impact of the guyed mast structure is not significant in the general landscape, given the slimline and semi-transparent lattice design. It is also well set back and naturally screened by surrounding bushland from sensitive receptors and main road frontages as detailed in Section 1 and Table 4.6 below.</p>

land for biodiversity protection, natural resource management, and protection of valued landscapes and views.	The proposed Met Mast supports the broader investigation for a potential wind farm project, which if approved, could create economic opportunities for the local community during construction. Once operational, the wind energy project will contribute to long term affordable and clean energy for the community and the wider region.
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4.3 State Planning Policy 3.7: Planning in Bushfire Prone Areas (WAPC, 2015)

State Planning Policy 3.7 Planning in Bushfire Prone Areas (SPP 3.7) applies to all land designated as bushfire prone and provides guidance on how land use should address bushfire risk in Western Australia. A summary of the SPP 3.7 and how the proposal considers this State Policy is described in **Table 4.5**.

Table 4.5 Proposed Alignment with State Policy 3.7

Policy consideration	Proposed Alignment
Objectives of SPP 3.7 seeks to avoid any increase of bushfire threats to people, property and infrastructure and ensures that strategic planning and development applications consider bushfire protection requirements and include bushfire protection measures. Policy measures include triggers for a bushfire risk assessment for development applications within designated bushfire prone areas. This policy also applies to areas not yet designated as a bushfire prone area but is proposed to be developed in a way that introduces a bushfire hazard.	The development is not proposed on land designated as bushfire prone areas, however, both proposed locations are adjacent land designated as bushfire prone. Installation and operation of a Met Mast is not considered a bushfire risk, nor will it introduce bushfire hazards to adjacent areas. The Project is investigating co-location opportunities for bushfire detection cameras to be installed on the Met Mast for identifying first signs of bushfire in the region. If the co-location opportunity is viable, the addition of bushfire detection cameras would greatly benefit the Shire and the local community who has experienced recent bushfires. The benefit of long-term bushfire detection cameras may also be proposed for the wind farm development should the Project progresses to the next stage, following the Met Mast wind monitoring program.

4.4 Planning Position Statement – Renewable energy facilities (WAPC, 2020)

The Position Statement applies to the assessment of all renewable energy development applications in Western Australia. The key aspect of the position statement is to identify assessment measures to facilitate renewable energy development to ensure these facilities are appropriately sited in areas that minimise potential impact on the environment, urban areas, and valued landscapes.

Lightsource bp has completed the following preliminary assessment to inform the placement of the Met Mast locations and the future design of the potential wind farm project:

- A planning and environmental assessment, including cultural and heritage constraints.
- An Aviation Impact Assessment specific to the Met Mast

How the Met Mast application has considered relevant aspects of the Position Statement are outlined in **Table 4.6**

Table 4.6 Consideration of the Position Statement – Renewable energy facilities

Policy measure	Proposed Alignment
Community consultation	As described in Section 2.0 , Lightsource bp has held discussions with involved landowners, the electricity service provider and the Shire of Narrogin about the potential development of a hybrid wind farm project. Further consultation with the community and key stakeholders will be undertaken should the broader wind energy project develops.
Environmental impact	The proposed Met Mast is located on cleared farmland and constitutes a very small development footprint of the subject lot. The construction and operation of the Met Mast will not require clearing of any native vegetation or impact on any significant environmental values or water resources. There is no significant risk of soil erosion or land degradation. The Met Mast construction will utilise existing site entrances and access roads and is not expected to have significant impact on neighbouring landowners and woodland or nature reserves.
Public and Aviation safety	An Aviation Impact Assessment for the Met Mast has been completed for the two proposed locations which is provided at Appendix F . Findings of the assessment is summarised below:

	<ul style="list-style-type: none"> • No certified airport is located within 30 nm and no aircraft landing area is identified within 3 nm of the Met Mast sites. • The Met Mast is not anticipated to affect the operations of the Narrogin Airport. • Markings and lighting are not mandatory, however may be recommended for aviation safety. • Due to the height of the Met Mast, the Civil Aviation and Safety Authority (CASA) must be notified of its proposed construction in accordance with Part 139.165(1)(2) of the Civil Aviation and Safety Regulations (1998) (CASR). • Upon construction, details of the Met Mast coordinates and elevation should be provided to Airservices Australia. <p>Proposed installation is not within a designated bushfire prone area and will not create a bushfire risk to the adjacent land that is bushfire prone as described in Section 4.3.</p>
Visual and landscape impact	<p>Both proposed met mast locations are well setback more than 1.0km (Met Mast East) and 3.0km (Met Mast Central) from the nearest main road. The nearest rural residences are located approximately 1.8km west of the proposed Met Mast East location and no residential dwellings are identified within a 2.0km radius of the Met Mast Central location. The closest rural residential dwelling to the Met Mast East location is well separated by Taylors Road and natural screening of this Met Mast location is afforded by approximately 350m of bushland adjacent these properties. The Met Mast is only temporary and once installed will have a low level of visibility and limited visual impact on the rural landscape due to the slimline and semi-transparent lattice design. Given the distance from rural residences and prominent road vantage points in the region, no significant visual or landscape impact is anticipated from the proposed development. The proposed Met Mast is also located greater than the minimum recommended distance of 1.5km from sensitive receptors, which is the separation distance guideline for noise and visual impact from wind farm developments in the <i>Position Statement: Renewable energy facilities</i>.</p>
Heritage	<p>An Aboriginal cultural heritage and European heritage preliminary desktop assessment has been undertaken for the general area for the two proposed Met Mast locations. No registered heritage sites have been listed in the area. Further assessment of heritage values of the wider region will be completed as part of the broader investigation for a potential wind farm.</p>
Construction impact	<p>The Met Mast construction will have minimal and limited impact on the subject land and surrounding areas. Installation and testing of the guyed mast will take 2 – 4 weeks and no significant increase to traffic is expected during the construction and operation of the Met Mast. Existing site accesses and internal access tracks will be used to deliver and construct the structure. No new access roads or site entrance will be created as part of the installation. The Met Mast once installed will be remotely operated. No significant risk of soil erosion or land degradation is anticipated from the limited excavation required. The works and installation footprint constitute a very small portion of the overall land parcel.</p>

5.0 Conclusion

The Met Mast proposed in this development application supports the broader investigation of the potential Narrogin East Wind Farm project, if approved, during the wind farm’s construction will be a source of skilled and unskilled jobs within the community, and once operational will contribute to the low cost, low carbon electricity generation fleet needed to transition the State to net zero. The future potential renewable energy project will create demand for a skilled permanent workforce that will ultimately strengthen the local economy and community.

The Met Mast development is both temporary and a necessary part of the overall investigation into renewable energy potential in the region. The proposal is consistent with the WA’s Position Statement on Renewable energy facilities and the intent of the relevant State policies and objectives of the LPS No. 3 zone for rural land use. Particularly relevant is the development’s alignment with the Shire’s Local Planning Policy No. D11 for wind farm and turbines as it is the necessary first step to determine the viability of developing a wind energy project in the Shire. Additionally, the proposal has considered the recommended setback distance for wind farm turbines from sensitive land uses. The proposed Met Mast is located more than the 1.5km minimum recommended separation distance to the nearest rural residence.

The proposed Met Mast will not require the clearing of native vegetation, permanent access roads, and will not reduce the agricultural land or impact existing waterways. The installation will aid bushfire detection in the area through the potential colocation of a bushfire detection camera and would pose minimal impact on airborne firefighting efforts, considering the remoteness of the installation. The aviation assessment undertaken for the Met Mast also shows no impact to aviation in the area.

The two proposed locations will be used over the course of the two years wind monitoring campaign. Only one Met Mast will be installed at a time. Once the campaign is complete, decommissioning of the Met Mast will remove the structure and all associated infrastructure from the site, reinstating the small development footprint to the existing agricultural land use, if the land is not deemed to be suitable for a wind farm development.

We trust that the information provided within this application is sufficient to inform the Shire on the purpose and need for the Met Mast installation. Should you have any further questions, please feel free to contact me.

Yours sincerely,

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