

LAMBRUK SOLAR PROJECT **FAQs**



VENN ENERGY

LAMBRUK SOLAR PROJECT



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LAMBRUK SOLAR PROJECT

ABOUT THE PROJECT DEVELOPER

Who is developing the Lambruk Solar Project?

Venn Energy Pty Ltd (Venn Energy) is an Australian renewable energy development company, founded by Canadian developer Venn Energy Inc., and Aira Group, an owner operator of renewable energy projects in Europe.

What experience does Venn Energy have in Australia?

The Banksia Solar Project in QLD was the company's first development asset in Australia.

The project was started in June 2019 and received development approval from the Bundaberg Regional Council in January 2021 and grid connection approval in June 2023. It is expected to begin construction in 2025.

Venn Energy acknowledges and pays respect to the past, present, and future Traditional Custodians and Elders of this nation and the continuation of cultural, spiritual, and educational practices of Aboriginal and Torres Strait Islander peoples

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ABOUT THE PROJECT

What is proposed?

The project would include construction of a solar facility and battery energy storage system (BESS). The solar facility would have a targeted electricity generating capacity of up to 500 MW (DC) and 300 MW (AC). The final number of photovoltaic (PV) panels would be dependent on detailed design, availability, and commercial considerations at the time of construction.

The panels would be mounted on a single axis tracker that changes orientation throughout the day to follow the sun and maximise energy captured.

The BESS would have targeted storage of up to 2,400 MWh utilising either or both DC-coupled and AC-coupled configurations. This would maximise electricity exported to the grid and provide reliable energy by stabilising the grid, shifting the supply of electricity from times of high supply and low demand to times of low supply and high demand.

The electricity generated onsite would contribute to the national electricity grid via the existing Transgrid 330 kV overhead transmission line.

The project has the potential to generate enough clean renewable energy to:

- Power approximately 180,000 NSW homes.
- Avoid the generation of approximately 600,000 tonnes per year of carbon dioxide.
- Reduce greenhouse gas (GHG) emissions equivalent to that produced by approximately 159,429 vehicles each year.
- Reduce GHG emissions the equivalent to the burning of approximately 303,030 tonnes of coal per year.

What is a solar project?

Solar projects consist of a series of PV panels arranged in a 'solar array'. These panels convert sunlight to electricity, with the generated direct current (DC) moving through cables to inverters. Inverters convert (DC) to usable alternating current (AC), which flows into high-voltage transmission lines and into the grid.

Where is the project site?

The project site is located between Kia Ora Lane and Duri-Dungowan Road approximately 15km southeast of Tamworth, NSW. The closest localities are Timbumburi and Loomberah.

The lot boundaries cover approximately 1,528 ha within the Tamworth Regional Council local government area.

The development footprint extends over approximately 950 ha within the project area.

The land is primarily zoned RU1 – Primary Production, with small areas zoned RU4 – Primary Production Small Lots.

Why has this location been chosen?

The greatest challenge for selecting where to develop new solar facilities is identifying areas within the electricity grid with available capacity to connect.

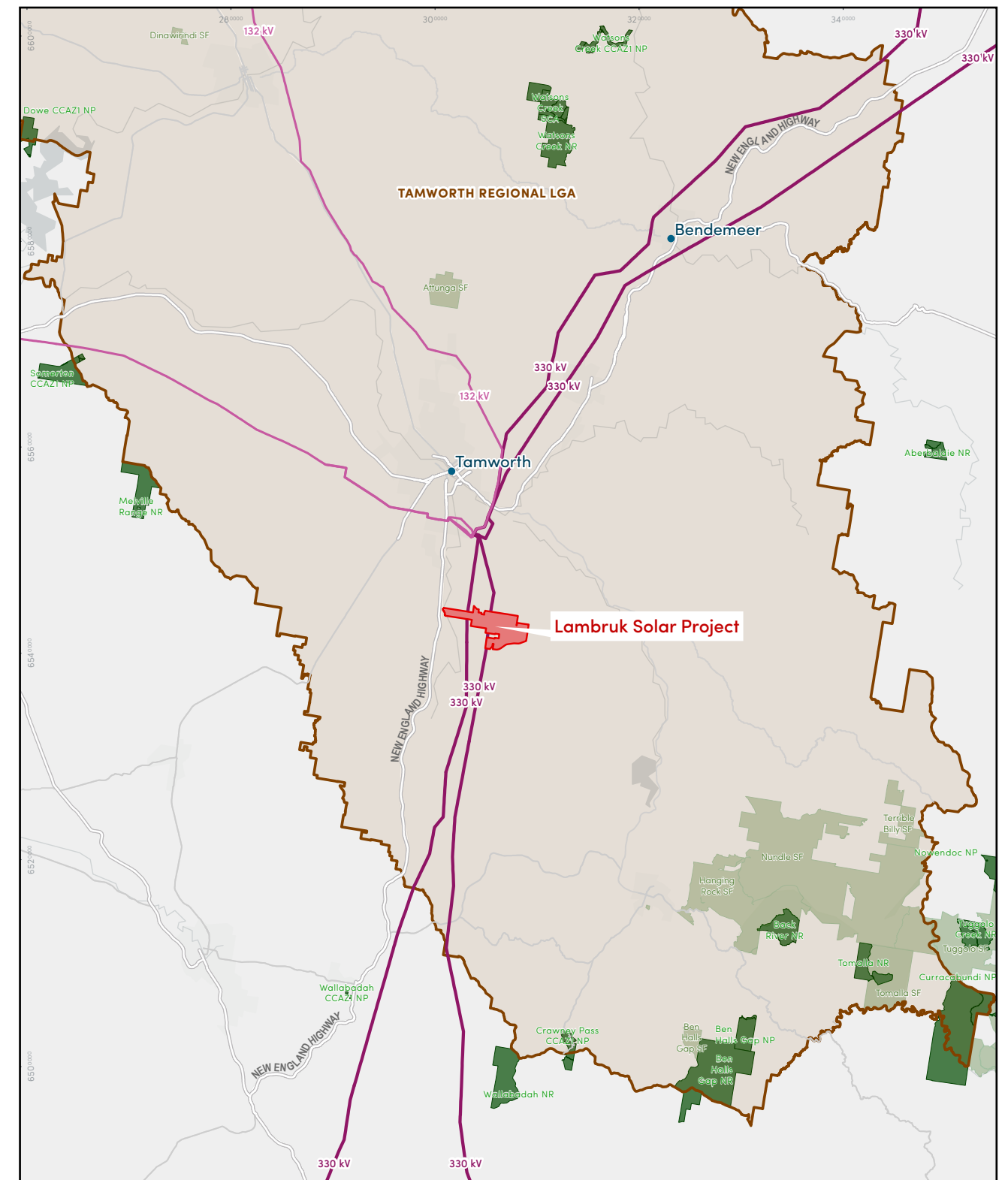
Once an area of the grid has been identified with capacity, planning experts assess the viability of the area based on various opportunities and constraints such as ecology, transport arrangements, landscape value, cultural heritage significance, agricultural land value, hazards, and amenity impacts.

Venn Energy has chosen the proposed site as an ideal place for a solar facility because:

- The site is in an area of excellent solar exposure.
- The site has an existing transmission line allowing for easy connectivity to the grid.
- The site has already been largely cleared of native vegetation and is heavily disturbed by previous agricultural activities including cropping.
- The proposed layout allows for minimal disturbance of native vegetation and wildlife.

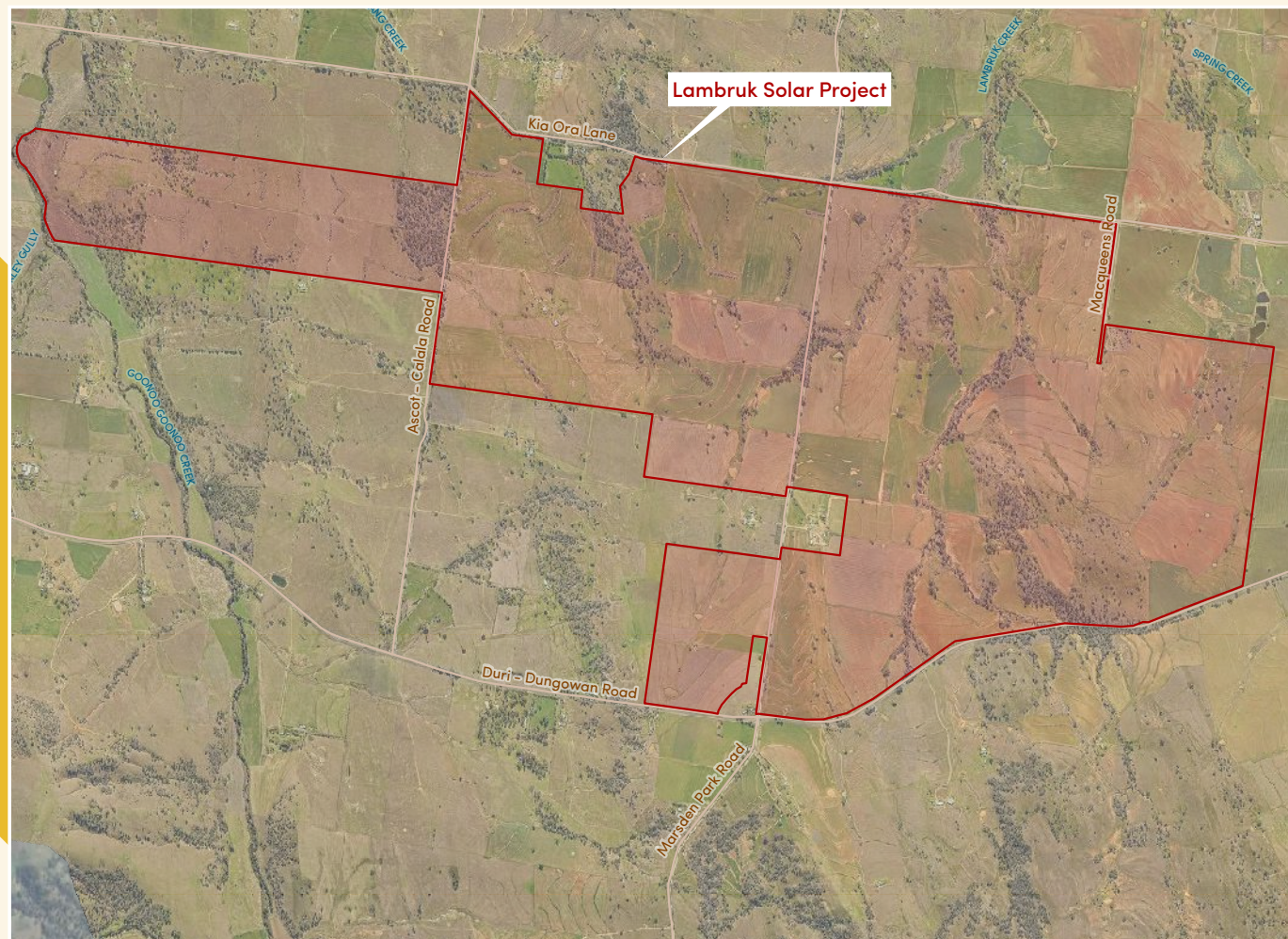
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PROJECT LOCATION



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PROJECT AREA



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CONSULTATION & COMMUNITY ENGAGEMENT

How will Venn Energy engage with project neighbours and the local community?

Venn Energy has been engaging with project neighbours and the wider community since late 2022. This has included community drop-in sessions, in-person and virtual meetings with individuals, small groups and community, presentations and briefings with key stakeholders, calls, emails and a monthly newsletter.

We have been reaching out to those people closest to the project to listen to their concerns and discuss possible and likely impacts. We have been working closely with our project designers to avoid, mitigate or manage impacts and will continue to do so as the project design is refined.

We believe the local community should share in the benefits of the project and have committed to establishing a neighbour and community benefit sharing program. As part of this program, it is intended that project neighbours and the wider community will be involved to ensure funds are appropriately administered and we will continue to engage with the community.

We encourage people to contact the project team directly with any questions or concerns.

Email: info@lambruksolarproject.com.au

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NEIGHBOUR & COMMUNITY BENEFIT SHARING

What is the proposed community benefit fund for the Lambruk Solar Project?

Venn Energy is committed to ensuring the economic benefits of the project are shared with neighbours of the project and the wider community in a meaningful and lasting way.

Venn Energy has committed to an annual neighbour and community benefit sharing program with minimum contributions of \$150,000 per year, over the expected 30-year operational life of the project.

The neighbour benefit sharing program will ensure long-term financial support throughout the life of the project to those closest to the site. The criteria for this program will be based on the proximity of neighbours to the project area as well outcomes of visual impact assessments.

Venn Energy has been, and will continue to be, in close communication with neighbours to the project prior to lodgement of the development application and during the approvals process.

How will the economic benefits of the project be shared with the local and regional community?

The project would have several potential direct and indirect economic benefits for the local community. These benefits include:

- Local employment opportunities for up to 350 employees and contractors during the construction phase, and approximately 15 full-time equivalent employees for the ongoing maintenance and operation of the site.
- Procurement of goods and services from local businesses for accommodation, meals, machinery contractors, construction trades, surveyors, cleaning services, security services, training service providers, building supplies, waste contractors etc.
- A neighbour and community benefit sharing program to fund local community initiatives and projects with minimum contributions of \$150,000 per year, throughout the expected 30-year operational life of the project.
- Reducing the cost of electricity for consumers in comparison to traditional fossil fuel-based energy sources.
- Increasing Australia's competitiveness in the international market for renewable energy.

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ASSESSMENT PROCESS

What stage is the project at?

The Lambruk Solar Project is still in the planning stage. A scoping report was submitted to the NSW Department of Planning, Housing and Infrastructure in February 2024. This documents preliminary feedback received through community consultation, as well as preliminary results of specialist biodiversity, noise, social and visual studies. The scoping report is available [here](#).

A comprehensive environmental impact statement (EIS) is currently being prepared for submission to the department. The community will have the opportunity to review the EIS and provide comment and submissions as part of the assessment process.

If the project is approved, construction is expected to take approximately 24 months and is proposed to commence in late 2026.

What is the state significant development assessment process?

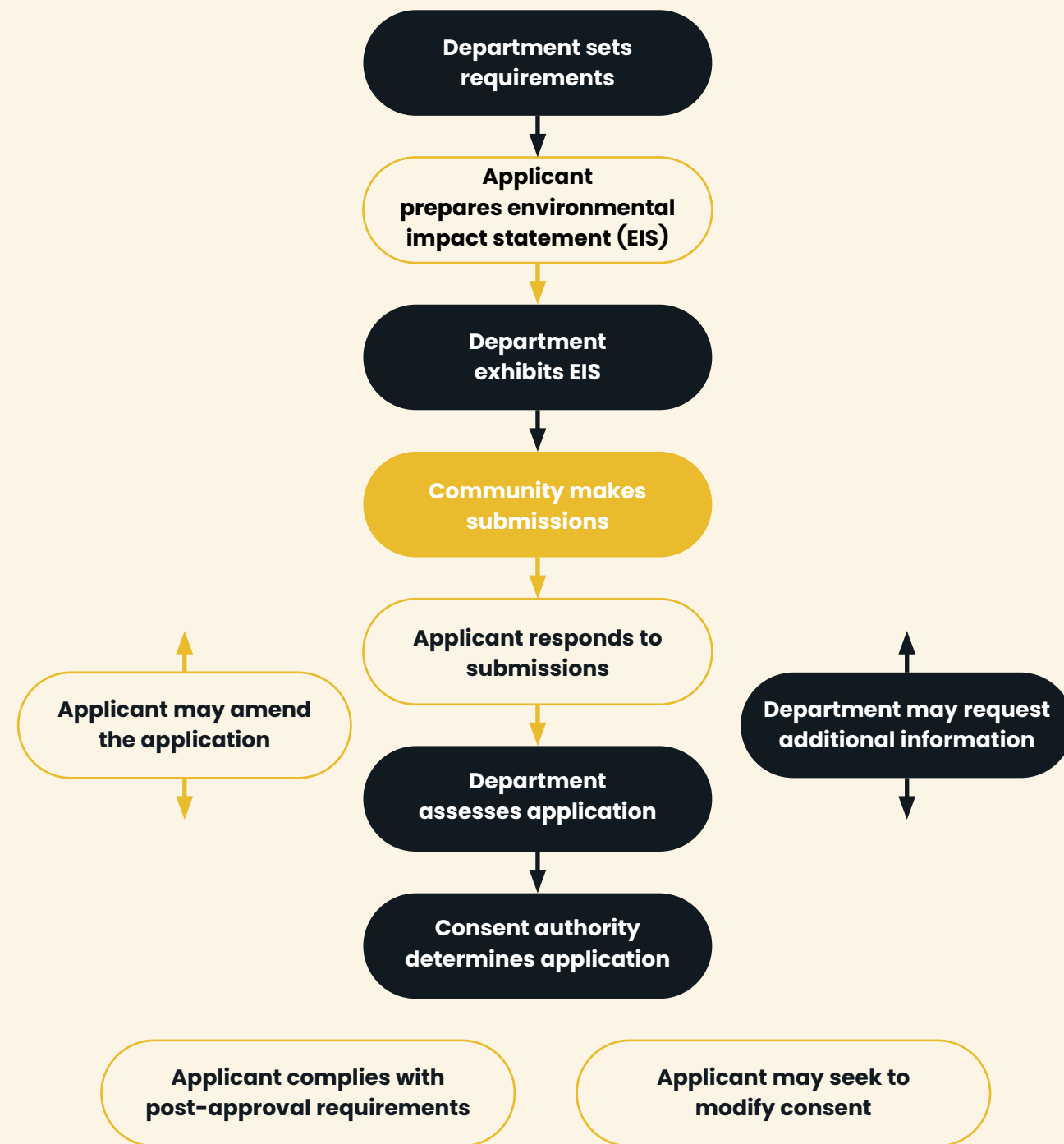
The project is a large-scale solar energy development and is considered a state significant development. As such, it is subject to a comprehensive assessment that includes extensive community consultation and detailed consideration of any environmental, social and economic impacts.

Further details about the process can be found in the *Large-Scale Solar Energy Guideline* (Department of Planning and Environment, August 2022).

What are the assessment requirements?

The Secretary's Environmental Assessment Requirements (SEARs) for the project were issued in March 2024. The SEARs are available on the NSW Planning Portal. The project is required to assess the likely impacts of the development on the environment, focusing on the specific issues identified in the SEARs. Other state significant solar developments would have similar assessment requirements.

STATE SIGNIFICANT DEVELOPMENT PROCESS



ASSESSMENT AND APPLICATION PROCESS

What specialist reports and assessments will be undertaken for the EIS?

The following assessments will be completed as part of the environmental impact statement (EIS):

- Aboriginal cultural heritage assessment report (ACHAR)
- Soils, land and agricultural impact assessment
- Air quality assessment
- Glint and glare assessment
- Biodiversity development assessment report (BDAR)
- Bushfire assessment report
- Economic impact assessment
- Historic heritage assessment report
- Landscape and visual impact assessment (LVIA)
- Noise impact assessment
- Preliminary hazard analysis (PHA)
- Social impact assessment (SIA)
- Traffic impact assessment
- Waste management
- Water resources impact assessment

Are cumulative impacts being taken into account?

The NSW Government requires cumulative impacts of state significant developments to be assessed as part of the EIS.

These requirements are described in the *Cumulative Impact Assessment Guideline* (DPIE, 2021) and specified in the Secretary's Environmental Assessment Requirements (SEARs), which are the minimum requirements for the EIS to be accepted by the Department of Planning, Housing and Infrastructure.

Venn Energy will address the cumulative impacts of the proposal as part of its development process and EIS submission.

Is a cultural heritage study being undertaken?

Yes, an Aboriginal cultural heritage assessment and associated Aboriginal community consultation will be undertaken during preparation of the EIS.

Prior to commencing construction, a cultural heritage management plan would also be prepared in consultation with Aboriginal stakeholders and Heritage NSW and approved by the Department of Planning, Housing and Infrastructure.

The Cultural Heritage Management Plan will assess the potential impact of the Project on any sites of cultural significance and provide a detailed management plan should any cultural artefacts be identified during construction.

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VISUAL IMPACT ASSESSMENT

How are visual impacts assessed?

The visual impact assessment for the project will be undertaken in accordance with the recently updated *NSW Large Scale Solar Guideline Technical Supplement for Landscape Character and Visual Impact Assessment* (DPHI, 2024). The new technical supplement aims to strengthen the landscape and visual impact assessment process to ensure consistent decision-making in the assessment process.

The landscape character impact assessment assesses the potential impact on an area's cumulative built, natural and cultural character or sense of place, where a visual impact assessment assesses the potential impact on views.

The technical supplement recognises that visual amenity should be afforded some protections. However, it also recognises the fundamental principle that landowners have no proprietary right to or ownership of a view, and a visible solar array or ancillary infrastructure does not necessarily constitute a visual impact.

Changes to the rural and natural landscapes will be necessary to facilitate a transition to renewable energy and to support the development of the solar energy industry. The new technical supplement aims to achieve balanced outcomes that avoid and manage significant landscape and visual impacts while supporting this change.

The visual impact assessments will include a combination of:

Zone of visual influence

To determine the potential locations and dwellings in the area which may be able to see the solar farm.

Public viewpoint analysis

Assessment of potential impacts from public locations.

Detailed dwelling assessments

Where desktop analysis, modelling and site visits identifies dwellings they may have visual impacts. This may include undertaking photomontages at specific dwellings.

Assessment of impact significance

Assessing the sensitivity (e.g. dwellings have high sensitivity) and the visual effect (how much of the solar development can be seen) to calculate the overall potential visual impact.

Cumulative visual assessment

Considers other proposed developments in the area.

Glint and glare assessment

Assessing glint and glare from public roads and dwellings surrounding the solar development.

Mitigation measures

Proposed mitigation measures to reduce visual impacts if determined to be required based on the level of impact assessment (e.g. visual screening).

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CONSTRUCTION

This is a quiet area. Won't the project be noisy?

The NSW Government has several guidelines and policies that must be addressed when assessing noise impacts of renewable energy projects.

Detailed noise modelling will be undertaken as part of preparing the environmental impact statement and the results will be included in a noise impact assessment.

Modelling is undertaken for noise sources during the day and at night, noting that construction would be restricted to standard construction hours.

Noise modelling will predict the noise levels from construction, operation and traffic of the project and compare it with the allowable limits set by the NSW Government.

How will traffic and road access be managed during construction?

The project site would be accessed via the New England Highway, then via Duri-Dungowan Road, Ascot-Calala Road and Marsden Park Road.

An agreement would be implemented with Tamworth Regional Council to guide construction standards and maintenance during the construction period.

Venn Energy, and their engineering, procurement, and construction partner, will ensure that requirements are closely followed, and that any construction is considerate of road users, stakeholders, and the community.

A detailed traffic management plan (TMP) will be prepared once the project design is complete and prior to commencement of Project construction.

The TMP will outline various traffic requirements to mitigate and manage the construction period.

When will construction take place?

If the Project is approved, and final investment decision received, construction is proposed to commence in late 2026.

Construction would take approximately 24 months.

Any works will occur within normal working hours (weekdays from 7am to 6pm and Saturday 8am to 1pm, with no work on Sundays or public holidays).

During construction, the following measures will be in place to minimise noise and vibration:

- No scheduled project construction, maintenance, and decommissioning activities to occur during night-time, Sundays, or public holidays unless prior approval has been granted by relevant regulatory body.
- Shut off / throttle down of any vehicles or equipment not in use.
- Use latest noise reduction equipment and technology, as reasonably practicable.

During construction, the following measures will be ensured to minimise dust generation:

- Avoid or minimise ground disturbance, soil movement and other dust producing activities.
- Use water or wetting agent on any exposed areas, including unpaved roads and lay down areas.
- Utilise wind breaks and silt fencing.
- Conduct flexible management of speed limits in accordance with road and wind conditions

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OPERATIONS

Will existing agricultural activities continue at the project site?

Yes, it is proposed that panel arrays will be spaced 4-18 metres apart, providing adequate space for the land to be used for agricultural purposes, such as sheep grazing.

Livestock grazing has become a widespread practice in conjunction with renewable energy developments. This practice is known as agri photovoltaics. Not only do livestock thrive but they also assist in maintenance of the project site, keeping vegetation low and assisting with weed management.

How will bushfire risk be managed?

The project will be designed to comply with the *NSW Rural Fire Service Planning for Bushfire Prevention (2019)*, which requires asset protection zones (APZs) to be established around the perimeter of the solar arrays, substation and battery compound. In these areas, vegetation must be strictly managed to a high standard for the life of the Project.

An APZ of minimum 10 m wide will be established around the solar array and BESS and maintained for the duration of the Project.

Will the project impact the value of my property?

Many studies have been undertaken regarding the impact of solar farms and other renewable energy projects on the value of surrounding properties. The consensus is that solar farms are not known to impact surrounding property values positively or negatively.

Venn Energy acknowledges that the primary asset for most families is their home and property. Where required, the visual impacts of the project have been avoided through changes to the project design, or will be mitigated through vegetative screening.

How will the project impact on water flows surrounding the site?

As required on all renewable energy developments, post-development water flows must be equivalent to predevelopment flows in terms of both water quality, path and volume.

Extensive hydrology models will be developed for the site to inform the design process to ensure these objectives are achieved after construction.

What is the 'heat island' effect?

Research carried out by Dr Barron-Gafford et al (2016) in Arizona identified the potential for solar projects to generate a 'heat island effect'. This research found solar projects could increase temperatures by three to four degrees Celsius and could adversely impact on surrounding agricultural production.

A subsequent report, prepared in 2018 by experts including Dr Barron-Gafford to provide additional information in relation to the heat island effect, concluded the following:

*Outside the solar array perimeter:
Temperatures dissipate quickly with height
above the solar panels as the thermal energy
radiates back towards the atmosphere.
Barron-Gafford showed results that any
spatial extent of the heat island effect has
completely dissipated at 30 metres.*

In summary, because the solar panels themselves trap the energy from diffuse sunlight that is able to reach the ground underneath them, air temperatures remain elevated within a PV array.

But, outside of the PV arrays, energy is able to radiate back towards the atmosphere, as it does in a natural setting, and the heat island effect quickly dissipates.

The Lambruk Solar Farm does not propose to remove the understorey vegetation/grasses below the proposed solar arrays, such that the heat island effect within the project footprint would be minimised based on these site conditions only.

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DECOMMISSIONING

How will the project be decommissioned?

A core principle of Venn Energy is that our projects shall always be developed and operated responsibly and ethically, and in alignment with the community and natural environment. Our industry-leading decommissioning regime is consistent with that principle, and our commitment to responsible stewardship for generations.

The project owner is obligated to fully decommission the project at the end of its lifecycle and return the land to its original condition. To provide further assurance of our commitment to this obligation, we have put in place a decommissioning regime based on leading best practices across our industry.

This includes a decommissioning fund that will be funded by the project during its operational life, according to the results of a third-party independent assessment of the expected decommissioning costs at the time. The fund will be accessible by the host landowner to decommission the project if for any reason the project owner fails to perform any of its duties for decommissioning of the project.

The decommissioning regime does not release the project owner from its obligations to decommission the project at the end of its life. Rather it provides further assurance that the project owner fulfills this obligation, and moreover it provides peace of mind to the host landowner and the surrounding community that they will never bear the cost of decommissioning the project at the end of its lifecycle.

Advancements in recycling methods and technology have provided innovative ways to recycle a majority of the parts of large-scale solar energy systems today. We fully expect these recycling advancements to continue to improve over the coming years and decades, with innovative new ways to recycle the valuable materials in these systems, at a reduced cost. We will always prioritise recycling wherever possible and remain committed to low-impact sustainable development, in line with our core environmental value.



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CONTACT US

Get in touch

We value feedback from residents and the wider community and we always welcome the opportunity to discuss queries you may have about the project.

Please feel free to reach out to us by:

Email: info@lambruksolarproject.com.au

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