Mallee Wind Farm

Project Overview

Proposed renewable energy development to be located approximately 16km north-east of Buronga in the Wentworth Shire of NSW.

Up to 1000MW of wind generation capacity with battery storage on site.

Generation equivalent to powering ~450,000 NSW homes per year.

Offsetting the emission of 2 million tonnes of greenhouse gases per year.

~500 construction jobs and ~40-50 ongoing jobs through operations.

What is being proposed?

WIND TURBINES

- Up to 150 wind turbines connected via underground cables and all-weather roads.
- Dimensions: tower (hub) height up to 180 metres and blade length of up to 100 metres.

BATTERY

- A containerised battery energy storage system.
- Dimensions: Either 40-foot container or smaller units.

CONNECTION

- The project would connect to the National Electricity Market via transmission infrastructure upgraded as part of Project EnergyConnect.

Why has this site been chosen?

- The proposed site has an excellent wind resource and the land where turbines are proposed is relatively flat and cleared.
- The turbine locations would integrate with existing cropping activities allowing multiple uses for the land.
- There is a very low density of housing within 10km of the site.
- It is within the South-West Renewable Energy Zone.

Who is Spark Renewables?

SPARK RENEWABLES

Spark Renewables is a leading developer and long-term owner of renewable energy generation. Our portfolio comprises the 100MW operational Bomen Solar Farm near Wagga Wagga as well as an extensive development portfolio of wind, solar and storage projects in Australia. Spark Renewables is owned by the Spark Infrastructure Group. Spark Infrastructure is an owner of essential energy infrastructure, including generation, transmission and distribution infrastructure across Australia.

CLEAN ENERGY COUNCIL MEMBER

Spark Renewables is a member of the Clean Energy Council (CEC) and a signatory to the CEC's Best Practice Charter for Renewable Energy Developments.

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Umwelt Environmental and Social Consultants have been engaged by Spark Renewables to develop the Environmental Impact Statement (EIS) and Social Impact Assessment (SIA) for the proposed project. Umwelt is an Australian consultancy with experienced environmental and social impact practitioners that are well-known for leading environmental and social practice across Australia. Umwelt will be consulting the community alongside Spark Renewables to inform the EIS and SIA.

WHAT ASSESSMENTS ARE REQUIRED?

Mallee Wind Farm project

- The project is considered **State Significant Development** (SSD) and will require development consent from the NSW Department of Planning and Environment (DPE) under the NSW Environmental Planning and Assessment Act (EP&A Act).
- The development application is to be accompanied by a detailed **Environmental Impact Statement** (EIS) which will include comprehensive assessments identifying the impacts of the project and how to best manage these impacts in line with the Department's *Wind Energy Guideline for State Significant wind energy development (2016)*.
- A detailed **Social Impact Assessment** (SIA) will be prepared as part of the EIS. The SIA will include a comprehensive community engagement program and be prepared following DPE SIA Guideline (2021) and *Undertaking Engagement Guidelines for State Significant Projects (2021)*.
- The project may also require approval under the Federal **Environment Protection Biodiversity Conservation Act 1999** (EPBC Act).

Scoping Report

- The first step in the development application process is to prepare a Scoping Report.
- A Scoping Report is a formal request to the DPE to issue Secretary's Environmental Assessment Requirements (SEARs).
- The Scoping Report outlines the proposed project and identifies important issues that may require further assessment, consultation and/or technical studies.

Studies to be undertaken as part of the Environmental Impact Statement (EIS)

1. Biodiversity
2. Visual amenity
3. Aboriginal heritage
4. European/Non-Aboriginal heritage
5. Social Impact Assessment
6. Traffic and access
7. Contamination
8. Flooding and hydrology
9. Noise and vibration
10. Soils
11. Bushfire
12. Waste
13. Aviation
14. Utilities
15. Electromagnetic fields
16. Land use
17. Cumulative impacts

Planning Process

Proposal announcement
Project announced to industry, government and community

We are here

Scoping report
Community consultation and preliminary technical studies undertaken

SEARs issued
Secretary's Environmental Assessment Requirements (SEARs)

EIS and SIA preparation
Community engagement and technical studies to inform the EIS and SIA

EIS Submission and Exhibition
Public exhibition for agency and community comment

Response to submissions
Addressing comments and issues raised about the EIS in a Response to Submissions report

Assessing the proposal
Assessment and recommendation by the Department of Planning & Environment

Determination of the proposal
The Minister for Planning or the Independent Planning Commission decides the proposal

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COMMUNITY & ENGAGEMENT

Purpose of community engagement

Spark Renewables is committed to undertaking extensive community consultation to enable all stakeholders to provide feedback on the proposal and identify issues that should be considered through the development process.

Stakeholders and the community will have multiple opportunities to input into the Social Impact Assessment via two rounds of community consultation, and through continuous, ongoing processes with Spark Renewables.

We encourage all stakeholders and community members to get involved in this process.

Stakeholders to be consulted

Community benefits

Supporting the community, local businesses, and local facilities with through the establishment of a community fund for the life of the project.

Local input to inform and shape the long-term community fund.

Construction and Operation

Focus on engaging Aboriginal people and businesses to support the project construction and operation.

Committed to protecting human rights, responsible sourcing of materials, and upholding high ethical standards in our working practices. We do not tolerate forced labour within our business or our supply chains and have systems and processes in place to address risks.

Committed to engaging with local workers and services wherever possible and will set targets to measure our achievement of this.

How to get involved

Stay informed by signing up to our newsletters at the project website **www.malleewindfarm.com**

Need more information? Ask us about having a one-on-one meeting or call

Email info@sparkrenewables.com
Phone 1300 271 419

Consultation

Consulting with the community is in early stages and will inform the Environmental Impact Statement

Scan to provide feedback via survey or go to
www.surveymonkey.com/r/Mallee-Wind-Farm-Survey

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WIND FARM TECHNOLOGY

- Wind farms are a sustainable form of electricity generation.
- They require no water for cooling purposes.
- Wind turbines occupy less than two percent of the proposed project site.
- Farming practices including cropping and grazing can continue largely unaffected when operational.
- They increase local economic stimulus and provide support for employment, training opportunities, and local businesses.

Wind turbine generators

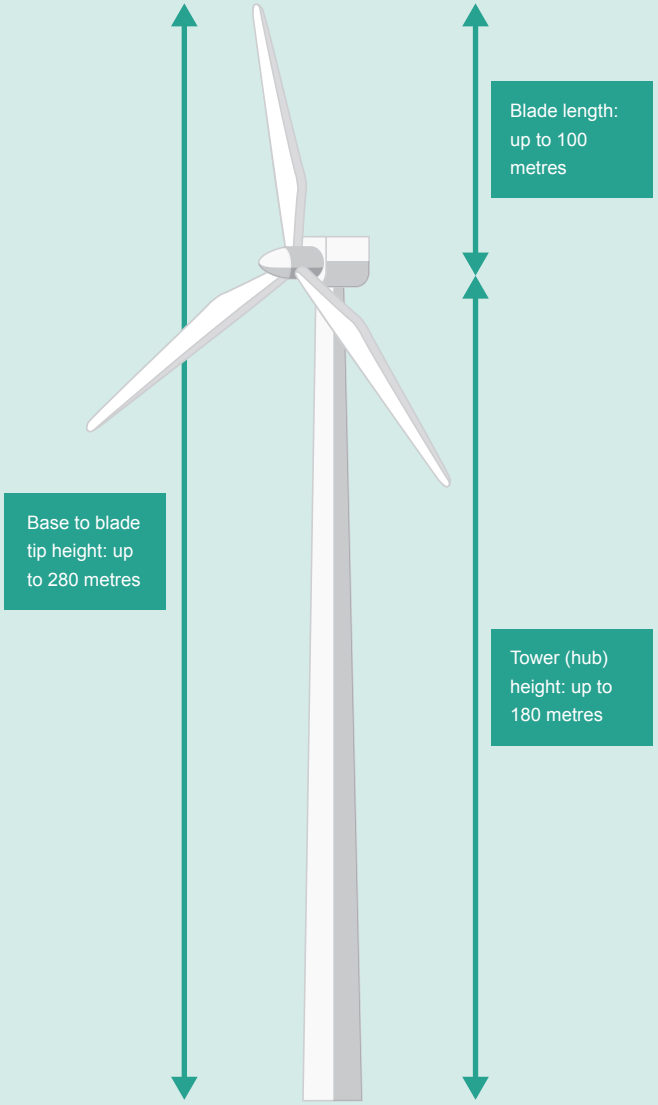
POWER

Modern wind turbines are around 6 - 7 megawatts (MW) each. A single turbine produces enough electricity to power the equivalent of ~3000 homes.

EMISSIONS

Each wind turbine abates ~13,000 tonnes of CO_2 equivalent greenhouse emissions.

Approximate wind turbine height:



Ancillary infrastructure - indicative dimensions

Crane hardstands	Footprint of 90 x 60 metres
Internal roads & drainage	Footprint of 10 metres wide
Substations	Footprint of 200 x 200 metres
Operations & maintenance	Footprint of 200 x 200 metres
Typical depth of underground cabling	0.9 metres
Met masts	125-180 metres

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BATTERY TECHNOLOGY

Battery packs (smaller units) and containerised battery design

FIRE HAZARDS & RISK MITIGATION

Integrated within the battery design will be an Asset Protection Zone serving as a fire break, as well as a heating, ventilation and air conditioning (HVAC) system.

Battery Energy Storage System (BESS)

CHEMISTRY

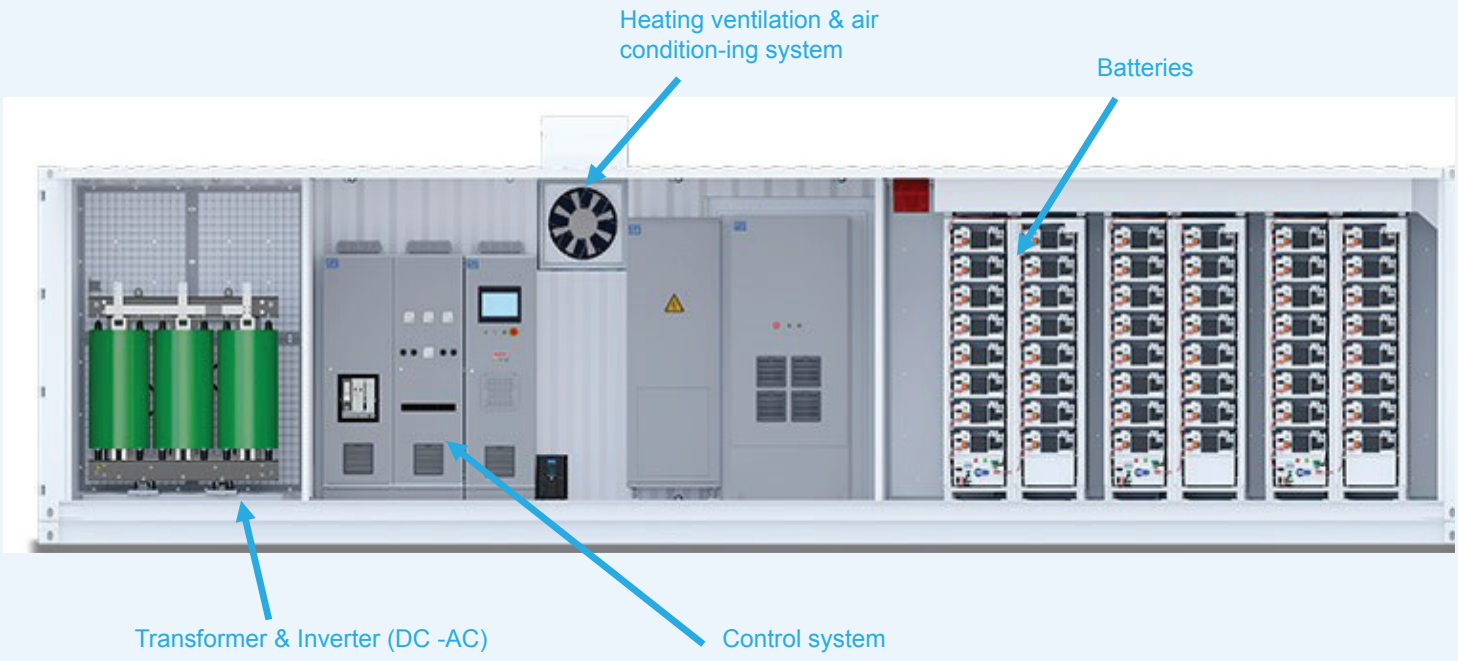
Lithium-ion or similar.

DIMENSIONS

Either 40-foot containers in a purpose-built compound or smaller DC coupled units distributed within the wind farm.

PURPOSE

- Provides firm generation 'on demand' for the electricity grid.
- Store excess electricity from the solar panels when the wind is blowing and then would distribute to the electricity grid when demand is at its highest.



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SOCIAL IMPACT ASSESSMENT

A key component of the assessment of the Project will be Social Impact Assessment which will be conducted by Umwelt Environmental and Social Consultants.

Social impacts are the consequences that people experience when a new project brings change to their lives.

Conducting a Social Impact Assessment places **people at the centre** – to understand impacts from the perspectives of key stakeholders.

Types of social impacts

The SIA Process

PREDICT SOCIAL IMPACTS

REFINE PROJECT TO AVOID SOCIAL IMPACTS

MINIMISE/ MITIGATE SOCIAL IMPACTS

ENHANCE SOCIAL IMPACTS

MONITOR SOCIAL IMPACTS

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