# **Twin Creek Wind Farm**

**Frequently Asked Questions - April 2025** 



# At a glanceUp to 270 MW Capacity90 km north east of Adelaide,<br/>between the towns of Kapunda,<br/>Eudunda and Truro.Up to 42 TurbinesImage: Colspan="2">Up to 220 m blade tip heightImage: Colspan="2">Up to 215 MW battery storageImage: Colspan="2">Transmission line approximately<br/>15 km of 275 kV overhead

### Other wind farm infrastructure: operations and

maintenance building and compound with associated car parking; two electrical substations; hard standing areas; access tracks; underground electrical cable reticulation; temporary construction facilities including a construction compound, borrow pit and concrete batching plant facilities.

Site boundary area: approximately 5,548 hectares

Development area: approximately 3,684 hectares

Disturbance footprint: approximately 380 hectares

**Portion of site boundary proposed to be utilised:** approximately 7%

### Construction timeframes (pending approvals):



### **About the Project**

### How big is the Project?

The Project layout includes up to 42 turbines, a battery energy storage facility, an overhead transmission line and associated ancillary infrastructure (including but not limited to substations, operations and maintenance compound and temporary construction facilities). The Project site is located 90 km north east of Adelaide, in the Mid North area of South Australia, between the towns of Kapunda, Eudunda and Truro. The Project is located within three local government areas, Light Regional, Goyder Regional and Mid Murray Councils.

The overall area within the site boundary is approximately 5,548 hectares, the majority of which is used for grazing or cropping. The development area comprises approximately 3,684 hectares and the proposed disturbance footprint comprises approximately 380 hectares. Of the total project area (within the site boundary), approximately 7% of the land will be utilised for the proposed development. Accordingly, existing land uses can largely continue without effect.



### **CONTACT THE TEAM**

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### How much power will the Project produce?

The wind farm will produce up to 270 MW – enough to power over 206,000 South Australian homes per year. The battery will provide up to 215 MW of power continuously for up to two hours at this maximum exporting power capacity. The battery will be used to provide grid support such as frequency support, as well as storing energy from the wind farm.

### How was the location chosen?

This site has been selected as it is ideal for a renewable energy development for the following reasons:

- Excellent exposure to South Australia's world class wind resources.
- Proximity to the Robertstown Tungkillo transmission line for wind farm connection, to provide transmission of more renewable energy in the region.
- Excellent transport access with minimal impact to local roads and easy access to major roads.
- Low population density surrounding the development area, allowing for excellent distance buffering (2km+) of wind turbines to the nearest non involved neighbouring dwelling.
- The Project site has historically been heavily cleared for agricultural purposes, facilitating minimal environmental impacts and avoidance of unnecessary impacts where practicable.
- Excellent complementary use of land for energy generation alongside farming. The Project can co-exist with the grazing and cropping land use activities on the subject land which can continue during the operation of the proposed development.

### How big are the wind turbines?

The turbine size will depend on both turbine availability and commercial suitability. The procurement process will be informed by the outcome of the planning application process. For flexibility of turbine selection, a conservative "Planning Corridor" has been used in all technical reports and environmental studies. RES is seeking development approval up to the following maximum specifications:

- Power output: up to 7.2MW each
- Blade tip height: up to 220 m
- Hub height: up to 134 m
- Rotor diameter: up to 172 m

### Why are wind turbines getting larger?

Larger turbines allow for longer blades, which further enhances their ability to capture wind energy. This trend towards bigger turbines improves the economy of scale. Greater power per turbines reduces the total number of turbines required and helps to reduce the cost of energy production.



### What other infrastructure is included in the Project?

The site will require some additional infrastructure to support the ongoing operations and maintenance of Project. This is expected to include the following:

- associated hard standing areas.
- access tracks with erosion and sediment control measures included in accordance with a project specific Construction Environmental Management Plan.
- operations and maintenance building and compound with associated car parking.
- two electrical substations (one project substation within the wind farm boundary and one cut-in terminal substation.
- a battery energy storage facility with an indicative capacity of 215MW.
- underground electrical cable reticulation.
- overhead transmission line for approximately 15 kilometres from the on-site substation to the existing overhead Robertstown - Tungkillo transmission line east of Truro.
- temporary construction facilities including a construction compound, borrow pit and concrete batching plant facilities.

This infrastructure will be contained within the site boundary.

### Will there be a battery storage system?

Allowances have been made to include a battery storage system as part of the wind farm development. Further network studies and commercial considerations are being carried out to determine the type of system to be installed. The indicative capacity of the battery is 215 MW. The battery energy storage system will be located within the wind farm site boundary.

### How will the wind farm connect to the electricity network?

Approximately 15 km of 275 kV overhead transmission line will be constructed, from the on-site substation to a terminal substation that connects the Project to the existing overhead Robertstown-Tungkillo transmission line east of Truro. The substations and transmission line form part of the development application.

### How close is the Project to houses?

RES has designed the Project with a minimum 2000 m (2 km) buffer between non-involved houses and wind generation turbines. State regulations require a minimum separation of 1500 m (1.5 km) from the base of a turbine to non-associated (non-stakeholder) dwellings and tourist accommodation.

## How long will the Project be there and what happens at end of life?

The wind farm is expected to have an operational life of approximately 30 years or more. The battery energy storage system is expected to operate for about 15 years. After this time, the project owner will either decommission the site and restore the area to its previous land use or negotiate with landowners to repower or upgrade the equipment and extend the wind farm's operational lifespan. In some cases, parts of the wind farm may remain post-decommissioning as they can serve a functional purpose, such as the substation or access tracks. The Project will have a decommissioning plan which details the rights and responsibilities of parties during decommissioning. The cost of decommissioning is borne by the Project owner.

Further details about wind farm decommissioning can be found on the Clean Energy Council website https:// cleanenergycouncil.org.au/for-consumers/fact-sheets/ recycling-get-the-facts/recyling-wind-turbines-solar-panelsbatteries

### What is the planning and approval process for the Project?

RES Australia Pty Ltd (RES) has an active planning consent for the Twin Creek Wind Farm and Energy Storage Project. The approved development is a 185MW wind farm comprising 51 wind turbines (3.6MW and up to 180 metre tip height) and associated 215 MW battery energy storage system. Since obtaining the planning consent in October 2019, RES has undertaken further design development in an evolving energy market.

To take advantage of the growth in wind turbine technology, RES has reviewed the approved Project and has optimised the Twin Creek Wind Farm and Energy Storage Project, particularly in terms of overall generating capacity and number and capacity of wind turbine generators. RES considered options available to amend the current planning consent to achieve variations to the Project and resolved that the alterations resulting from the optimisation warranted the submission of a new Development Application (DA). Against this background RES resolved to seek a new development authorisation for the Project with an optimised design.

The optimised Project will require development consent under the Planning, Development and Infrastructure (PDI) Act 2016. The Project is seeking approval under a Crown development planning assessment pathway pursuant to Section 131 of the PDI Act. Under the Crown development planning assessment pathway, RES will seek State agency support for the Project (from the Department of Energy and Mining) on the basis that the Project is 'essential infrastructure' pursuant to Section 131 of the PDI Act.

A DA has been prepared and was submitted in November 2023. Requested additional information was provided to the Department for Housing and Urban Development - Planning and Land Use Services in January 2025. The DA was exhibited for public comment from 5 March 2025 to 4 April 2025.

The State Commission Assessment Panel will now assess the application, taking into account the development report, any comments made by the public, Council and other referral bodies and will prepare a report for consideration by the Minister for Planning and Local Government (Minister). The confidential recommendation is provided to the Minister who may approve or refuse the application.

As part of the preparation of the DA, RES has undertaken environmental, economic and social assessments to understand both the impacts and opportunities the Project presents to local communities and the environment. The DA has included a socio-economic assessment in addition to specialist studies including assessments on effects to visual changes, noise, biodiversity, heritage, water, traffic, hazard, bushfire, soils and land use. The detailed design of the Project

