



Tailem Bend 2 Hybrid Project

Renewable energy charging up to optimise on the South Australian summer in 2023

Community Information Package

An introduction to our hybrid project

Our Commitment

Vena Energy Australia

Due to the ongoing implications of Covid-19 and concerns for the health and wellbeing of the broader Tailem Bend community, Vena Energy Australia have decided to forgo a face-to-face community session and will share a comprehensive Community Information Package, in the early stages of construction.

This will provide the community with key information on the Project and a chance to learn of new opportunities on the horizon.

The Vena Energy Australia (VEA) team have been working in the Tailem Bend community since 2016 to deliver renewable energy to the region. We are excited to kickstart construction on the second stage of solar and Battery Energy Storage System (BESS) which commenced in April 2022 as part of the Tailem Bend 2 Hybrid Project (TB2HYB).

We believe that our long-term success goes hand-in-hand with enhancing, empowering, and encouraging the broader well-being of the communities in which we operate.

We consider our ongoing partnership with the Tailem Bend community to be of the utmost importance, and our ongoing success in the region will be the result of this partnership.

We are committed to working with the Tailem Bend community to foster economic development and encourage community benefit through the delivery of the TB2HYB.



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Vena Energy's first Australian hybrid system aggregating solar and battery generation operating as a single system

Tailem Bend 2 Hybrid Project

Mobilising in Tailem Bend 2022

Technology & Components

Solar Farm & BESS

The Tailem Bend 2 Hybrid Project includes Vena Energy Australia's second stage of solar generation in the region and our first BESS project in South Australia. The first stage of solar commenced construction in April 2018, achieved full commercial operation in May 2019 and has been providing clean renewable energy to the South Australian grid ever since!

Construction for stage 2 of the solar farm commenced in late April 2022 with approximately 150 staff expected to be involved in the construction phase. The BESS project is expected to commence construction in October 2022 with a peak workforce of approximately 30.

Once operational, the BESS will have a maximum generation output of 41.5MW and will provide energy storage and ancillary services, supporting the reliability of the South Australian grid. The solar farm will have a maximum generation output of 87MW of renewable energy, sufficient to power the average annual needs of 45,000 South Australian homes!

A number of components will be required to facilitate the absorption of sunlight, conversion and export of the electricity from the solar farm into the grid.

Several innovative technological advancements in solar panel design will be utilised:

- Bifacial solar panels which allow for the absorption of solar irradiance from both sides of the module, resulting in higher power output.
- Solar panels will be mounted on single-axis trackers and will move to track the movement of the sun, increasing energy production.

The BESS will serve both as a load and a generator for the network, absorbing energy from the grid when demand is low and discharging energy back to the grid when demand is high. The BESS will also provide frequency control ancillary services to manage the frequency on the grid.

The batteries will be housed in outdoor weather resistant, liquid cooled battery cabinets with the latest technology improvements in the field of fire prevention and fire suppression systems. Battery cabinets will be connected to inverters and transformers which are in turn connected to the Coorong 2 Substation which connects to ElectraNet's Tailem Bend Substation.