

Hughes Gap BESS Frequently Asked Questions

ReEnergy Australia Holdings Pty Ltd is developing a Battery Energy Storage System (BESS) in Hughes Gap, located in the Mid North Region in rural South Australia.

Acknowledgement of Country

ReEnergy acknowledges the Traditional Owners, the Nukunu People, and their continuing values, culture and connection to land, waters and sky. We pay our respects to Elders past and present.

1. Who is ReEnergy?

Established in 2022, ReEnergy Pty Ltd is a Singapore domiciled Independent Power Producer. The company is focussed on acquiring, developing and operating renewable energy projects, with a footprint in both Australia and Asia. The ReEnergy team has a market-leading experience in the renewables industry having collectively acquired, developed, financed, operated, restructured and managed 20+ GW of power and numerous renewable energy projects.

Key members of the ReEnergy team were founding shareholders of Nexif Energy, which developed and operated the Lincoln Gap Wind Farm and Snapper Point gas power station in Australia.

2. What is the project?

The Hughes Gap Energy Project is a proposed Battery Energy Storage System (BESS) located about 10 km north of Crystal Brook. This project will help make our electricity grid cleaner, more reliable, and ready for the future.

3. Where is it proposed?

The BESS is proposed to be established in proximity to the townships of Warnertown, 4.8km to the North-West and Crystal Brook, 10km to the South-East.

The site is 5ha and is located near the intersection of Princes Highway and Collaby Hill Road, within the jurisdiction of Port Pirie Regional Council.

4. How big is the battery?

The BESS has a 300 MW capacity, and a four-hour duration period. That's enough energy to power more than 85,000 South Australian homes!

5. Why was this site chosen to have a BESS?

The site is close to existing infrastructure like the ElectraNet transmission line and substation and major highways.

6. What is BESS & how does it work?

BESS is a technology that uses a group of batteries to help stabilise electricity grids and store energy when its needed. It stores renewable energy during times of low demand and sends extra electricity to the grid during peak time.

The battery is connected to the grid, and it can respond quickly when electricity demand or supply changes. This helps to keep the grid stable and reliable.

7. What does a BESS look like?

BESS facilities look like modular systems that can be configured based on specific site and capacity requirements. The technology is continuously evolving with BESS components becoming increasingly more efficient and compact in size. BESS facilities can be screened using vegetation to minimise any potential visual impacts.

8. What is the lifecycle of a BESS?

A BESS is made up of lithium-ion phosphate or other lithium-based chemistries that store large amount of energy in solid state electrodes. Modular units resemble a shipping container, containing thousands of smaller cells operating like a typical battery. A battery can last up to 25 – 30 years.

9. How will the construction of the BESS affect traffic?

A BESS requires many different materials and equipment for its construction, that will need to be delivered to the site. We will collaborate with State and local road authorities to develop a Traffic Management Plan to ensure impacts to local traffic is minimal.

10. How noisy will the BESS be?

The BESS is designed to operate quietly. The main sounds come from cooling fans inside the battery units and electrical equipment, which run when the system is charging or supplying electricity.

As the project design is finalised, noise will be reviewed in more detail and equipment will be selected to keep noise as low as reasonably possible.

11. Does the BESS produce vibration during operation? And during construction?

When the BESS is operating, it is not expected to cause noticeable vibration. The main equipment, including the batteries, electrical components, and cooling systems, runs quietly and does not involve large moving parts. Any small vibrations from fans or electrical equipment would be very minor and would not be felt beyond the project site.

During construction, there may be some temporary vibration from activities such as earthworks, trucks, or construction machinery. These works would take place during daytime hours and be managed to reduce any disruption to nearby residents. All construction activities would follow required licence conditions and relevant regulations.

12. Will there be any light day and night on the BESS plant?

During construction, temporary lighting may be used at night to keep workers safe. This lighting would be focused on the work areas and managed to limit light spill beyond the approved site.

Once the site is operating, only low level security lighting will be used. This lighting is typically motion activated or on timers and will be designed and positioned to minimise impacts on neighbouring properties outside the approved site area. -level security lighting will be used. This lighting is typically motion-activated or on timers and will be designed and positioned to minimise impacts on neighbouring properties outside the approved site area.

13. Will the technology cause ground contamination and end up in water supply?

The BESS has been designed with safeguards to protect local groundwater. These include containment areas and drainage systems that are specifically designed to capture and manage any spills or runoff on site.

Electrical equipment that contains oil will be located within sealed containment areas (called bunds) that are designed to prevent oil from spreading if a leak were ever to occur. These areas also include filtration systems that treat any contaminated water before it can be safely managed. The systems will be inspected and maintained regularly to ensure they continue to work as intended.

In addition, the site's drainage basins will be lined with protective layers that prevent water from soaking into the ground. This means any water from heavy rainfall or fire-fighting activities would be captured and safely contained, preventing contaminants from reaching groundwater.

14. Are there any known health risks?

The BESS will use similar technology to the batteries that are being increasingly installed in homes, just on a larger scale. There is no known health risks associated with properly maintained large-scale battery installations.

15. What will happen if there is a fire from the BESS?

The BESS is designed with multiple layers of fire safety to reduce the risk of a fire and manage it safely if one were ever to occur. This includes built-in fire detection, monitoring, and suppression systems, as well as containment and filtration measures.

Each battery unit is fitted with safety features such as smoke and heat detectors, alarms, automatic fire suppression systems, pressure-release panels, and emergency shut-down controls. These systems are designed to quickly detect and respond to any issue.

16. How is the BESS site protected in the event of a bushfire?

Bushfire is a risk to any asset and we are acutely aware of the bushfire risk in regional South Australia. The design will meet Australian standards and Country Fire Service (CFS) requirements and includes measures such as water tanks for firefighting, clear separation between vegetation and equipment, spacing between equipment to reduce fire spread, and internal access roads for emergency vehicles.

Detailed Emergency Response and Bushfire Management Plans will be prepared as part of the construction and operation of the site to ensure the safety of the battery, the community and the environment.

17. What kind of workers do BESS facilities require during construction and operation?

There is a wide variety of employment opportunities created during BESS construction and operation. This includes site pre-work, civil and electrical works. Typical jobs created during construction and operation include:

- Surveyors
- Geologists
- Traffic controllers
- Civil labourers / supervisors / construction manager and WHS coordinators
- Site engineers
- BESS installers
- Electricians/fitters
- Electrical trades assistant/labourers/supervisors / construction manager
- Concrete Suppliers
- Accommodation providers Local pubs, hotels and food service providers
- Operational inspections and maintenance

18. How many jobs would be created during construction?

Approximately 50 full time jobs during construction

19. What happens at the end of its life?

When the BESS reaches the end of its life, it will be carefully dismantled under a Decommissioning Management Plan.

20. What benefits will there be for the local community from the project?

We are committed to supporting First Nation people and local communities to bring meaningful benefits where it matters most. Through the Hughes Gap BESS Community Benefit Sharing Fund (the Fund), \$60,000 (indexed to CPI) will be available for local community and First Nation People initiatives.

The Fund will run annually for the duration of the Project, commencing at the beginning of construction of the Project and remain in place until decommissioning of the Project is complete. This will ensure that maximum benefits are received by the First Nation people and surrounding communities to the BESS.

We want to hear from you

We are committed to being transparent, inclusive, and responsive, listening to concerns, answering questions, and incorporating feedback wherever possible. Together, building a cleaner, more sustainable energy future for South Australia.

The Project Team welcomes feedback from community members and stakeholders to help shape the Hughes Gap Energy Project. Your insights are important to ensure the project reflects local values and priorities.