

Battery (or BESS)

Frequently Asked Questions

Elaine Terminal Station

About Iberdrola Australia

We are a long-term developer, owner, and operator of renewable energy generation and storage projects. We are committed to being the leading green energy provider for Australian businesses.

Over the past 20+ years, our team at Iberdrola Australia has worked alongside the communities that host our projects and developed longstanding relationships. We are committed to ensuring meaningful, ongoing, and positive consultation and benefit-sharing with our neighbouring communities.



Iberdrola Australia staff

What is a Battery Energy Storage System (BESS)?

Batteries are an energy storage technology designed to absorb and release electrical energy when needed. Batteries store excess electricity generated by renewable energy such as solar and wind when production is high and demand is low. The energy is used during periods when demand is high. This avoids a shortfall in electricity supply. Batteries can respond faster than other energy storage or generation technologies.

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 either vegetation or artificial mitigation to minimise any potential visual impacts.

What's involved in designing a BESS?

BESS facilities are designed with the following considerations:

- Proximity and connectivity to the grid.
- Safety.
- Relevant standards, guidelines and legislation.
- Constructability around whether the design is practical to build.
- Potential environmental and heritage impacts.
- Operations and maintenance requirements.
- Project costs.

How does a BESS connect to the grid?

BESS facilities connect to the grid via transmission connection to a nearby terminal station or substation. In this case it will connect into the Elaine Terminal Station.

How does a BESS operate?

A BESS operates (charge and/or discharge) based on network and market conditions. These are the key features of a BESS:

- Operational 24 hours a day, seven days a week.
- Largely operated remotely.
- Construction takes on average 12-18 months.
- Operational lifespan of around 20 years.



What is the difference between MW and MWh?

'MW' means 'megawatts' and is the measurement of the rated power capacity of a BESS. This is the total possible instantaneous discharge capability starting from a fully charged state.

'MWh' means 'megawatt-hours' and is the measure of the storage duration of a BESS. This is the amount of time energy can be discharged at its power capacity before using up its energy capacity. For example, a BESS with 100 MW of power capacity and 400 MWh of usable energy capacity will have a storage duration of four hours.



What kind of jobs do BESS facilities require?

There is a wide variety and cross section of employment opportunities created during BESS construction and operation. This includes site pre-work, civil works and electrical works. The 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, food service providers
- Operational inspections and maintenance

What happens in the event of a bushfire near the battery site?

Iberdrola Australia takes every precaution in the planning, delivery and operation of BESS to ensure batteries are built to Australian Bushfire standards. This includes safeguards to help prevent fires in the unlikely event they occur.

Should you notice a bushfire occurring near a BESS, call Triple Zero (000) and inform the operator.

Local firefighters will liaise with our 24-hour operation centre to minimise risk.



What happens in the event of a battery fire?

Iberdrola Australia takes every precaution in the planning, delivery and operation of BESS to ensure they are safe for local communities. This includes built in safeguards to help contain fires in the unlikely event they occur.

In the unlikely event that a BESS near you catches fire, evacuate the area, call Triple Zero (000) and inform the operator that a BESS is involved.

Local firefighters will liaise with our 24-hour operation centre to minimise risk.

What's involved in decommissioning?

When a BESS reaches the end of its life, it is decommissioned, and the area is returned to its original conditions. This process involves:

- Dismantling and removing the BESS facility infrastructure.
- Removing most of the aboveground infrastructure.
- Rehabilitating the site.

Iberdrola Australia (as the BESS operator) is responsible for the decommissioning. The requirements for the decommissioning, such as rehabilitating the land are detailed in the contracts with the landowners and in the planning approval process.

The Decommissioning Plan is prepared as per planning requirements and outlines all the infrastructure, equipment, buildings and structures to be removed and details of how these will be removed. This is undertaken in accordance with the relevant regulations that govern the safe transition and disposition of used equipment.

Where possible, steel and concrete would be recycled. Other materials, such as inverters, control systems and other electronic equipment will have components that would be recovered and reused.

Whilst the research and opportunities for recycling BESS components is developing, the industry continues to look at processes that support the circular economy principles: cradle to-cradle design, achieving 100% recyclability and designing out waste and using recycled inputs.



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Will I be able to hear a BESS?

BESS facilities have the potential to generate some sound. The main source of the sound is the cooling fans required to regulate the operating temperature of the individual battery cells. The sound they make is similar to an air conditioning unit or a dull whirring noise. Noise made by BESS will vary from project to project, depending on:

- Project location and local ambient noise.
- Distance to sensitive receivers.
- Size of the BESS.
- Battery system used.
- At site noise attenuation used.

As part of the planning approvals process, detailed noise studies are undertaken by specialist consultants who apply authorised environmental noise guidelines to measure noise levels during project development to ensure that noise generated will be within the applicable noise limits.

When they are operating, BESS facilities are required to meet strict noise requirements which are put in place through the planning process and comply with the relevant noise protocols and/or guidelines. For more information, visit the [Victorian Government planning website](#).



Join our Mailing List

If you would like to join our mailing list and receive updates on the project please email the Project Team at mountdoranbattery@iberdrola.com.au.

Contact Us

If you have any questions about the project, feedback, or would like to share your local knowledge, we are available via the contact information below.



Visit our website:
www.iberdrola.com.au



Email the Project Team:
mountdoranbattery@iberdrola.com.au



Call the Stakeholder Manager:
0417 543 502

Acknowledgement of Country

Iberdrola Australia respectfully acknowledges the Traditional Owners of Wadawurrung Country and their enduring connection to their ancestral lands and waters. We pay our respects to the Traditional Owners who have gone before, who are living today and who are yet to be born. We honour the Aboriginal and Torres Strait Islander peoples, their living experiences, and their enduring connection with Country to which they belong.



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