

BATTERY ENERGY STORAGE SYSTEMS

A reliable and secure power supply is vital for our everyday lives. Battery Energy Storage Systems (or 'BESS') are becoming increasingly common in Australia as a safe and effective way to support renewable energy generation and to reduce outages. A BESS is a collection of thousands of small batteries, typically made of lithium-ion cells.

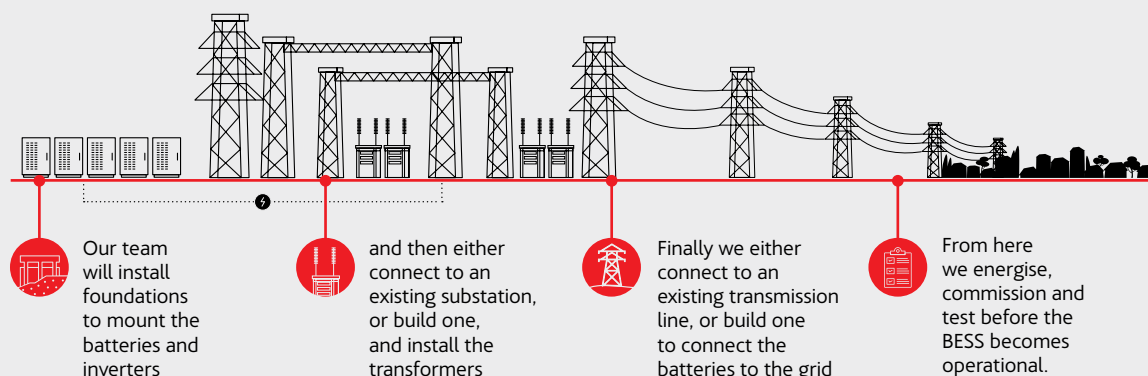
These batteries are connected to the electricity grid and can store the excess energy generated from renewables like wind and solar farms. They can also be recharged by the grid itself.

Storing energy to meet demand

The transition to renewable energy comes with the challenge of balancing supply and demand. Solar energy is generated when the sun shines, but demand often peaks in the evening when we use more appliances. Similarly, wind energy can be produced at any time, including when demand is low, like at night. This mismatch can be resolved with batteries, which store surplus energy during low-demand periods and release it when demand rises.

Building a BESS

To build a BESS, we will install an underground transmission network connecting the BESS to a central substation:




25 years
EACH BESS HAS A LIFESPAN OF APPROXIMATELY 20-25 YEARS.

WHAT ARE THE BENEFITS OF A BESS?



Keeps the electricity grid stable and reduces power outages



Can store cheap excess power and distribute during peak demand times



Reliable, affordable and on demand power supply





Battery storage safety

Battery storage systems are safe and well-regulated in Australia. Vast technological improvements in recent years and the increasing number of BESS systems in Australia have significantly boosted industry safety knowledge and practices.

At ACCIONA Energía, we are committed to the safe and secure operation of all our renewable energy assets. Our projects only use equipment from certified battery suppliers who comply with all Australian safety standards and include components that have preventative and protective features to minimise fire risk.



Planning ahead

Our fire risk management begins well before construction starts on any BESS project. During project development, we work with fire specialists to reduce risks, implementing a range of preventative measures:

- Development of a comprehensive fire safety study to identify how we can further minimise the risk of fire occurring or spreading within and outside the facility
- Design of the battery facility to ensure adequate spacing between battery units
- Inclusion and maintenance of an appropriate fire break between the battery and the facility perimeter

We also work with local and state fire and emergency services to develop comprehensive emergency response plans and deliver on-site emergency response training for our staff.



Built-in safety measures

Each BESS unit has a Battery Management System that continuously and automatically monitors battery performance and health, including the voltage and temperature of each individual battery cell. The system can automatically and instantaneously shut down and isolate a cell or the entire battery pack if it detects a voltage discrepancy or an abnormal temperature reading.

In the unlikely event of a fire:

- A built in fire suppression agent will be automatically released within the battery container if smoke or carbon monoxide is detected.
- Sprinklers will activate automatically and flood the battery container with water to reduce its temperature.
- Thermal insulation will help to minimise the chance of fire escaping the container.

All ACCIONA Energía's facilities are continuously monitored 24/7 by our local and global control centres and can be remotely shut down if required.

Contact Us

We hope you found this information useful.

To find out more about ACCIONA Energía and our projects, visit our community hub at



www.community.acciona.com.au



or call our community information hotline on 1800 283 550

