

In response to questions raised during the Development Application we have undertaken further assessments on fire safety for the proposed Hazeldean BESS.

As part of the Development Application we submitted to Council in 2024, we conducted a Hazard and Risk Assessment (HRA). As Council and community stakeholders have raised concerns regarding fire management for the proposed Hazeldean battery energy storage system (BESS), we have undertaken further assessments.

This factsheet provides an update on safety measures which will be in place throughout the life of the project.



## What is a Hazard and Risk Assessment?

The objective of an HRA is to develop a comprehensive understanding of the safeguards that will be used on the project to prevent or reduce hazards and risks associated with the BESS.

## What did council and the community request?

Council requested additional assessment to ensure that the battery will have adequate measures in place to reduce the risk and impacts of fire on the environment, community and surrounding land uses.

The Council requested further clarification on proposed fire mitigation strategies, including water supply and potential air quality impacts if a fire were to occur.

## Key takeaways

- We will produce a **Fire and Emergency Management Plan (FEMP) specifically for this site**. This plan, along with the **Environment Management Plan** outline how we would minimise potential impacts to groundwater and the environment in the unlikely event of a fire.
- After implementing the recommended measures, the HRA concludes the residual fire risk associated with the BESS project **to be low**, and therefore adequately mitigated

## What's next

We will continue to work with local fire authorities and Council to design and implement a comprehensive fire management plan. This will include:



**Detailed design:** The final layout of the project will be designed to ensure effective fire safety and containment, in accordance with the law.



**Operational plans:** We will have a detailed, site-specific Fire and Emergency Management Plan to implement all recommended safety measures.



**Regulatory oversight:** All measures will align with relevant guidelines and environmental regulations.

**We appreciate your continued engagement and will keep the community informed as the project progresses.**

## Is fire a risk for BESS projects?

Fire is recognised as a hazard associated with lithium-ion batteries, however, battery powerpacks in containerised BESS modules have been specifically designed so that associated fires don't spread easily.

Due to improvements in technology, manufacturing, and commissioning, the global failure rate of BESS infrastructure has decreased by 97% between 2018 and 2023.

The safeguards recommended in the HRA are designed to minimise the chance of fire, and in the worst case, contain the risks within the site boundary, and reduce the risk to areas outside the site boundary.

The HRA concludes that the residual fire risk associated with the battery and infrastructure will be low and will be adequately mitigated using the safeguards recommended in the report.

## Will a fire impact air quality?

The HRA also involved a review of the chemical composition of smoke plumes from previous battery fires, and outcomes of previous relevant battery fire incidents and took into account the advances to battery technology to be implemented in this project. The HRA concludes that, following the implementation of recommended safeguards (summarised below), the risks associated with air quality hazards in the unlikely event of a fire are low.

## What controls and mitigations are proposed?

A site-specific Fire and Emergency Management Plan (FEMP) will ensure that the facility is prepared for an emergency incident, damage to the site is minimised, that the safety of onsite personnel, emergency responders and the community is assured, and that any period of disruption to operations and supply is minimised. **The battery project will be designed with robust safety measures:**

**Battery Management System (BMS):** Automatic shut down in case of any exceedance of safe limits of voltage, current and temperature, internal battery fire suppression measures are instigated.

**Optimised site design:** Sufficient distance between battery units ensuring effective fire containment. Design advice from battery manufacturers, QLD Fire Services and relevant codes of practice and standards will be implemented.

**On-site water storage:** Dedicated water storage tanks will be installed solely devoted to firefighting, ensuring prompt support for emergency response.

**Contain contaminated water:** Use lined basins or bunds to capture runoff.

**Surface water controls:** Direct rainwater away from sensitive zones through stormwater design and landscaping.

**Soil management:** The Environment Management Plan (EMP) will include measures to manage any soil contamination, should any event occur on the site, including off-site disposal.

**Bushfire mitigation:** Appropriate asset protection zones will be implemented and maintained for the life of the project.

**Ongoing review of measures:** The FEMP will be reviewed periodically to implement lessons learned from any incidents globally and annual reviews throughout the life of the Project.

**Continuous monitoring and maintenance:** The facility will be monitored 24/7 by the National Electricity Market remote operation centre. The facility will also have routine maintenance inspections conducted by the Operation and Maintenance team to ensure continuous safety and reliability.

## Further information

Please contact [hazeldean@enervest.com.au](mailto:hazeldean@enervest.com.au) for specific queries or to subscribe to project updates. You can also visit our website at [enervest.com.au/project/hazeldean-bess/](https://enervest.com.au/project/hazeldean-bess/)