Submission ID: SE59A85AE

Two comments for the ExA attention please:
1. A document is attached requesting ExA follow-up with the Applicant with regards to the BESS battery storage facility.
2. Hillam PC also supports our resident [redacted] in his proposal that solar panels should be re-aligned around Maspin Moor Drain. Details are in Mr Force submission.
regards [redacted] Hillam PC

BESS Issues

Hillam Parish Council asks the Examining Authority to challenge the measures being proposed for the LVS Battery Energy Storage facility.

Battery design and safety: It is clear from the Applicant's 'Outline Battery Safety Management Plan'[1] that the design of the battery storage is yet to be completed, including decisions on battery chemistry, stating instead that the 'BESS design and system chemistry type is still to be determined, and the final battery chemistry will be confirmed as part of the detailed design prior to the commencement of construction'. And yet the Applicant also states that they have 'developed the BESS in accordance with all relevant legislation and good practice' and where 33 different standards, including the National Fire Chiefs Council guidance, are cited. In the absence of a final design this is seemingly an empty claim. Specifically, the National Fire Chiefs Council guidance[2] states that there are a 'range of battery chemistries available which suit different use cases, have a different maturity and which present different risks and safety profiles that are at varying states of maturity'.
We ask that the ExA seek confirmation from the Applicant of the battery facility's design, its compliance with all relevant standards and also seek independent validation of the safety measures that will be adopted.

Fire suppression systems: The National Fire Chiefs Council guidance seeks confirmation of 'the type, purpose, and effect of any fire suppression system installed'. And yet the Applicant's submission allows for the option of no fire suppression system being provided in the BESS design: The Applicant's oBSMP[1] (section 1.3.12) includes the statement 'If the BESS system does not incorporate an automatic fire suppression system and is designed to safely burn out to remove the risk of stranded energy in the battery systems…'. This conflicts with the Applicant's statements in their oBSMP, namely:

1.3.10 The safety objectives for the design of the BESS are:

1) To minimise the likelihood of a failure event (this is an overriding priority);
2) To minimise the consequences should an event occur;
3) To restrict any event to the BESS site and minimise any impact on the surrounding areas;
4) To automatically detect and begin to fight a fire as soon as possible;

Therefore, we are seriously concerned that the Applicant seeks the option of a lower cost design, with no fire suppression, and with the prospect of leaving battery fires to burn out and thereby exposing dwellings particularly in Hambleton, Monk Fryston and Hillam to clouds of toxic fumes. The NFCC guidance (Section 14) also seeks confirmation of Water supplies: 'additional on-site water supply must be accessible to fire and rescue services in the event of an emergency. There should be enough water available to meet firefighting requirements and to manage a reasonable worst-case scenario'.
We ask the ExA to pursue the Applicant for confirmation of an automated and effective fire suppression system and an adequate BESS fire suppression plan.

Recovery and Remediation: Section 6 of the NFCC Guidance seeks confirmation of 'How will water run-off be managed', whilst section 19 requires that 'The operator should develop a post-incident recovery plan that addresses the potential for re-ignition of BESS and de-energising the system. The plan should also include provisions for removal and disposal of damaged equipment and contaminated fire water effluent'.
We ask the ExA to pursue a clear and adequate plan from the Applicant for recovery and remediation post any incident.

Hillam Parish Council
5/11/26

[1] Outline Battery Safety Management Plan (oBSMP), Ref: EN0110012/APP/LVS/07.06. Sept 2026, Version 2
[2] National Fire Chiefs Council guidance: Grid scale energy storage system planning - Guidance for fire and rescue services. Version 2

Appendix 1: National Fire Chiefs Council guidance: Grid scale energy storage system planning - Guidance for fire and rescue services

Changes from version 1 to 2 include: **A new dedicated section on Battery chemistry**, drawing on the Department for Energy and Net Zero (DESNZ) 2024 report, and discussing differences in safety profiles, such as the generally better thermal stability of Lithium Iron Phosphate (LFP) compared to Lithium Nickel Manganese Cobalt Oxide (NMC) batteries.

Section 6: System design, construction, testing and decommissioning
What is the type, purpose, and effect of any fire suppression system installed?
What is the purpose of the water supply provision on site? Is it intended for boundary cooling / defensive firefighting or active suppression?
How will water run-off be managed?

Section 7: Battery chemistry
There is a **range of battery chemistries available which suit different use cases, have a different maturity and which present different risks and safety profiles that are at varying states of maturity**.
There are **multiple variants of lithium-ion batteries**....it is noted that LFP batteries typically have better thermal stability (lowering the probability of thermal runaway) than NMC batteries, but not removing it.

Section 8: Detection and monitoring
An effective and appropriate method of early fault detection within the batteries should be in place, making it possible to immediately disconnect the affected battery/batteries remotely. This may be achieved through an effective battery management system (BMS).
The risk management process should include detection systems to alert the operator of an event at the site. Appropriate automatic detection such as smoke, gas, or radiant heat detectors, as well as continuous combustible gas monitoring within BESS cabinets/enclosures should be provided in all BESS. Where systems are installed, gas detectors should alarm when flammable gas is detected, shut down the BESS, and initiate full exhaust ventilation.

Section 9: Suppression systems
Suppression systems will either use inert gas or aerosol suppression, or water-based suppression. The type of suppression system should be **dictated by the battery technology** used within the BESS, and not by site conditions or constraints.

Section 10: Explosion control (deflagration protection)
Explosive vapours will be produced which – through the process of thermal runaway, and **depending on the battery chemistry – may transition to flaming combustion, or remain as a vapour cloud that could lead to an explosion hazard that personnel need to be aware of**.
BESS containers should be fitted with explosion protection or deflagration venting appropriate to the hazard and battery technology deployed.

Section 14: Water supplies
...additional on-site water supply must be accessible to fire and rescue services in the event of an emergency.
There should be enough water available to meet firefighting requirements and to manage a reasonable worst-case scenario.

Section 19: Recovery
The operator should develop a post-incident recovery plan that addresses the potential for re-ignition of BESS and de-energising the system. The plan should also include **provisions for removal and disposal of damaged equipment and contaminated fire water effluent**.

Appendix 2: LVS Submission - Outline Battery Safety Management Plan (oBSMP), Ref: EN0110012/APP/LVS/07.06. Sept 2026, Version 2

1.3.1 For the purposes of this oBSMP a **concept design** has been considered…

1.3.3 The BESS **design and system chemistry type is still to be determined**, and the final battery chemistry will be confirmed as part of the detailed design prior to the commencement of construction.

1.3.10 The safety objectives for the design of the BESS are:

1) To minimise the likelihood of a failure event (this is an overriding priority);
2) To minimise the consequences should an event occur;
3) To restrict any event to the BESS site and **minimise any impact on the surrounding areas**;
4) To automatically detect and begin to fight a fire as soon as possible;
5) To ensure any personnel on site are able to escape safely away from the BESS Compound; and
6) To ensure that firefighters can operate in reasonable safety, where necessary.

1.3.12 **If the BESS system does not incorporate an automatic fire suppression system** and is designed to safely burn out to remove the risk of stranded energy in the battery systems, then full scale free burn testing will be conducted to demonstrate that loss will be safely limited to one enclosure without the intervention of the NYFRS.

1.4.1 There is currently limited UK specific guidance for the design of BESS, however the Applicant has incorporated global good practice and best available technology.

1.4.2 The Applicant has **developed the BESS in accordance with all relevant legislation** and good practice (and proceeds to cite 33 standards, inc. Ref 1) National Fire Chiefs Council (NFCC) Grid-Scale Battery Energy Storage System planning – Guidance for FRS (2026)).