**Bromsgrove District Council**
**Planning Committee**

**Committee Updates**
**29 July 2025**

| **24/00960/FUL Land Off Illey Lane, Hunnington** |
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| **UPDATE TWO** |

Hereford & Worcester Fire and Rescue Service (HWFRS) has submitted further comments regarding the proposed scheme. These were received on 29 July 2025.

Grenergy have subsequently provided a response to these comments.

The LPA's commentary on these comments is outlined at the end of the table.

| **Hereford & Worcester Fire and Rescue Service Comments 29 July 2025** | **Grenergy Response 29 July 2025** |
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| **Water Supply and Fire Suppression** - A minimum flow rate of 1,900 litres/min for 2 hours (i.e. 228,000 litres) Grenergy response seems to reject NFCC water supply guidance as 'not suitable'. Although the fire strategy suggests there will be two hydrants it omits to provide any detail, location, testing data for flow rates etc.<br><br>It is also noted that on p.17-18 of the DNV report a reduced volume is suggested (300- 500L/min based on Energy Institutes Code of Practice 2019), referring to fires at petrochemical installations. If correct this does not meet the NFCC guidance.<br><br>Our letter also asks for detail concerning suppression systems, the information provided is relatively brief, with no detailed specification nor performance data provided. | The submitted is based on the management and full containment of almost 12 hours of storage at a rate of 1900 l/minute for a total volume of 1,342 m3 without intervention. This exceeds the minimum requirement for water supply of 2 hours at 1900 l/minute noted in the NFCC Guidance. Gondolin and/or Grenergy shall liaise with Hereford & Worcester Fire and Rescue Service (HWFRS) throughout the development and construction phases to ensure the proposed FWMP is in compliance with the latest best practice guidance. As an approved scheme, this accords with the guidance.<br><br>Not all BESS units include suppression. At present the final choice for the BESS unit to be installed at this site has not been finalised, this would only be done once the scheme is approved and has reached the tender process. The plans submitted show the typical dimensions of the BESS units so these would not change. Condition 5 requires the submission of the details of the BESS units for approval. This information can be provided at that stage. |
| **Site Access and Roadways** - Our letter clearly asks for two separate access points to the site, this has not been shown on the application. Furthermore, NFCC guidance requests a perimeter road, which I do not believe has been achieved, as the site plan only shows the road to one side of the site. There is also no turning facility provided on-site. | The developer of the site will provide an emergency response plan and business continuity plan to cover, amongst other matters contained within the Grid Scale Battery Energy Storage System planning – Guidance for FRS published by NFCC National Fire Chiefs Council, allowances for the consequences of 'not having at least two separate access routes to the site'. This will cover accounting for opposite wind conditions/direction and what compensatory features have been provided to overcome this. The |

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| | guidance allows for this. There is a perimeter road on site that goes around the BESS units. Turning on site can be achieved as shown by the detailed information within the Transport Statement.<br><br>Condition 6 of the Committee report provides a requirement for fire safety arrangements to be submitted and approved, but we have provided two examples of Planning Conditions accepted for other sites we have gained approval for below.<br><br>*Upon commencement of the development, a Risk Management Plan and Emergency Response Plan shall be submitted to and approved in writing by the Local Planning Authority. These plans shall be developed using the best practice guidance as detailed and required in the published Grid Scale Battery Energy Storage System planning - Guidance for FRS published by NFCC National Fire Chiefs Council. Where the aforementioned guidance cannot be adhered to in full, an explanation of why should be provided within the Risk Management Plan and Emergency Response Plan. Once approved, these plans shall be implemented thereafter and for the duration of the developments lifetime.*<br><br>*Reason: In the interests of public safety and ensuring any risks associated with the proposed development are suitably identified and mitigated in accordance with Local Plan Policy POLL1.*<br><br>*Prior to the commencement of any above-ground works pursuant to the development hereby permitted, an emergency response plan shall be submitted to and approved in writing by the local planning authority. The emergency response plan shall be developed using best practice guidance as detailed and required in the published Grid Scale Battery Energy Storage System planning - Guidance for FRS published by NFCC National Fire Chiefs Council. The development shall be carried out and thereafter operated only in accordance with the approved emergency response plan.*<br><br>*Reason: To ensure appropriate emergency procedures are in place for the lifetime of the development*. |

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| | These can of course be amended accordingly to suit the Local Planning Authority. |
| **Container Separation Distances** - Our letter requests 6 metre separation, and whilst there is a discussion in the DNV report concerning how units will be grouped, they have not provided any fire modelling by a qualified fire engineer to qualify the assumptions. | The site layout plan showing the BESS, where they are back to back, accord with the minimum distance of 0.915m (3ft) as per guidance within the following document, Grid scale electrical energy storage systems: health and safety, published by the Department for Energy Security and Net Zero, on the Government website (extract below).<br><br>3.4.1 Equipment Location<br><br>The physical distance between equipment is the most significant factor in how fire can spread within a BESS site, so maintaining adequate separation is crucial to minimising its potential impacts. Containers housing battery cells, being the most likely source of a fire, must be separated from each other and from other equipment such as transformers, control equipment, office buildings, and from the site perimeter. These separating areas, in addition to being physically large enough to prevent fire spreading across them, should be kept clear of obstruction and regularly assessed for contamination, e.g. with plant growth or spilled substances which could assist in fire propagation. Guidance on appropriate separation distance varies across existing guidance documents, and as with all standards these are subject to change over time. It is advised that the relevant competent duty holder take a precautionary approach based on available standards and always conduct their own fire risk assessment to understand site specific risks and demonstrate that appropriate mitigations for fire spread are in place.<br><br>Current standards include:<br><br>NPFA 855 (which is perhaps the most commonly applied standard) requires a standard separation distance of a minimum of 10 ft (3048 mm), with the opportunity to **reduce this to 3 ft (914 mm) where design mitigations have been taken such as large-scale fire testing (complying with UL 9540A or equivalent test standard**), the use of non-combustible walls or containers with 2-hour fire resistance rating established in accordance with ASTM E119 or UL 263<br><br>This is referenced in the updated draft Guidance from the NFCC, due out this year we believe, but is 'live' guidance now. As set out above, 3.4.1 |

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| | Equipment Location, pinpoints reference to the current standard NPFA 855. This accepts a reduction in spacing distances down to 3ft between containers where a battery unit holds UL9540A. You will note from the Tesla Megapack 2 XL Datasheet for this equipment that the BESS units proposed hold this compliance with large-scale fire testing. Further information on UL 9540 can be found here - https://www.ul.com/news/ul-9540-energy-storage-system-ess-requirements-evolving-meet-industry-and-regulatory-needs<br><br>For the avoidance of doubt, as we have noted the advice and guidance surrounding BESS installations is continually evolving at this time. That said, we are aware that the current guidance https://nfcc.org.uk/wp-content/uploads/2023/10/Grid-Scale-Battery-Energy-Storage-System-planning-Guidance-for-FRS.pdf states,<br><br>**A standard minimum spacing between units of 6 metres is suggested(9) unless suitable design features can be introduced to reduce that spacing. If reducing distances a clear, evidence based, case for the reduction should be shown.**<br><br>With (9) being FM Global (2017) Property Loss Prevention Data Sheets: Electrical Energy Storage Systems, para. 2.3.2.2, it must be highlighted that this has been superseded by the following update - FM Global, 'Property Loss Prevention Data Sheets 5-33. Lithium-Ion Battery Energy Storage Systems, Interim Revision January 2024'. This link will take you to this document - https://fireprotectionsupport.nl/wp-content/uploads/2024/03/FMDS0533-2024-01.pdf<br><br>Within this document it states,<br><br>"Separation distance is based on doors being located on only one side of the enclosure and no vents or unprotected openings on any other sides. It is also based on active systems (HVAC or liquid cooling) maintaining cell or module temperatures in the target enclosure or container."<br><br>"For containerized LIB-ESS comprised of lithium iron phosphate (LFP) cells, provide aisle separation of at least 5 ft (1.5 m) on sides that contain access panels, doors or deflagration vents".<br><br>"2.3.2.4 Provide separation between solid walls having no openings based on installation-level |

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| | testing that demonstrates thermal runaway cannot propagate between containers"<br><br>Regarding compliance with the above mentioned installation-level testing, in short, UL codes are installation code requirements, with UL 9540 evolving continuously to better meet the safety needs of industry and the regulatory community. For information, ESS size and separation requirements in particular have been addressed in the second edition of UL 9540. ESS installation codes contain size and separation requirements designed to prevent a fire originating in one ESS unit from propagating to adjacent ESS units or adjacent battery room walls and exposures.<br><br>The size requirements limit the maximum electrical storage capacity of non-residential individual ESS units to 50 KWh while the spacing requirements define the minimum separation between adjacent ESS units. Exceptions in the codes allow the code authority to approve installations with larger energy capacities and smaller separation distances based on large-scale fire testing conducted in accordance with UL 9540A, the Test Method for Evaluating Thermal Runaway Fire Propagation in Battery Energy Storage Systems Standard – **which the batteries proposed as part of this application comply with (as noted above).**<br><br>The significance of the new UL 9540 requirements is as follows:<br><br>**Prior to the changes, there were no requirements in the first edition of UL 9540 that limited the maximum energy capacity of ESS units. For example, it was possible to certify (list) a 200 KWh unit with no UL 9540A fire testing. To approve an indoor installation of this larger ESS unit or an installation with separations less than three feet, the code official would have to ask for the UL 9540A test report, review the detailed findings, then determine if the proposed ESS size and spacing should be approved.**<br><br>**With the new UL 9540 requirements in place, the process is simplified. ESS larger than 50 KWh or with separations less than three feet cannot be listed to the second edition of UL 9540 without complying with appropriate UL 9540A fire test performance requirements. To determine compliance with a specific installation's size and** |

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| | **separation requirements, code authorities simply have to confirm that the ESS is certified (listed) to the second edition UL 9540, and is installed in accordance with the listing and the manufacturer's installation instructions, which includes minimum separation distances. The system designer and code authority still need to review the UL 9540A report to evaluate flammable gas release data. The data may be needed to design code-mandated explosion control systems. As can be seen, better aligning the UL 9540 second edition requirements with UL 9540A large-scale fire testing and code requirements has helped the system designer and code authority determine code compliance.**<br><br>For details of the UL 9540A Testing, please follow the link below,<br><br>https://www.ul.com/services/ul-9540a-test-method<br><br>Alongside the back to back distances we have shown we have adhered to, the side to side and front to front/aisle separation distances are also adhered to, with the above has explained and set out how the proposed separation distances are based on installation-level testing that demonstrates thermal runway cannot propagate between containers.<br><br>On this basis, we have demonstrated that separation distances between units adhere to current guidance based on installation-level testing and current industry standards and have provided the requested information on the BESS units to be installed on site and what safety systems are installed, to ensure they mitigate the risks that this installation could pose.<br><br>The developer will provide a comprehensive risk management plan, prior to the commencement of development in order to identify hazards and risks specific to the facility, and to provide a long-term maintenance and review of risk amongst other matters contained within the Grid Scale Battery Energy Storage System planning – Guidance for FRS published by NFCC National Fire Chiefs Council. We would be happy to accept a Planning Condition to provide this information. |
| **Vapour Cloud, Explosion & Deflagration Risk**<br>Our letter requests mapping and identification, and also the potential | We do not consider this is required given the distance from any receptor – and as noted within the LPA Planning committee report paragraph 20.7. |

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| environmental impact of such a scenario, which again we have not had site of. Whilst there is some generic statements, there is no specific site modelling or plan been provided by the applicant. | |
| **Operation Response**<br>No discussion has taken place with the applicant concerning this, which is of concern to HWFRS. Indeed, DNV suggest that a plan will be provided post consent, which I do not consider appropriate. As discussed above, DNV have not engaged with HWFRS, and therefore I am unable to comment further on this particular point. | Please see attached correspondence with the HWFRS, a follow up email following a meeting with them. The matters discussed were:<br>• Site design (As discussed we have followed the NFCC guidance with regards to access and vehicle manoeuvrability requirements, separation distances and on-site water supply. Whilst the final design will be amended post-planning consent once the BESS supplier is confirmed, these principals will be maintained and we are submitting to planning a design that would be deliverable)<br>• Internal Fire Suppression System ("Technical Specification_Narada Center 20 1500-280-3727L-1C Container V1.2 (1)" provides the specific detail of the fire suppression system for a Narada Battery system who are the most likely supplier of the batteries for this project. Should this change in the future we will provide a similar specification sheet.)<br>• Next steps – The applicant highlights that "We will be hoping to agree a pre-commencement condition with yourselves and the local planning authority to provide a full Fire Risk Management Plan and Emergency Response Plan post-planning consent once we know the full details of the battery supplier and any other design amendments. Both of these plans we would want to work with yourselves to agree, including onsite meetings"<br><br>Clearly this shows engagement with the HWFRS, and the applicant had been in contact with these officers up to submission. Having worked on a number of these submissions, it is rare that the officer providing comments to the planning application will have been aware of prior discussions with the more local FRS Officer. |
| **Testing & Design Evidence** - HWFRS have been provided no detail concerning specifications, gas detection, suppression systems etc., which does not meet the NFCC guidance for this application. | Our response on separation distances covers the above. |
| | **Other matters**<br>Grenergy have appointed DNV to the role of fire safety advisor for their UK BESS portfolio, supporting design safety and risk management processes in line with relevant standards, |

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| | regulations, and industry best practice. This report contains the Risk Management Plan prepared by DNV for use across Grenergy's BESS portfolio. The Risk Management Plan demonstrates the high standards of safety which will be incorporated across project design, development, and intended operations. |

**LPA Commentary**

Fire risk and fire water management issues has been appropriately addressed in Section 20 of the Committee Report.

The applicant has submitted a Fire Strategy Plan (an extract of which is included on page 68 of the Committee Report) as well as a Fire Safety Risk Management Plan.

The LPA have reviewed both comments and remains of the view that subject to the imposition of condition 6 regarding the requirements for fire safety arrangements, that the matters raised by the Hereford & Worcester Fire and Rescue Service as highlighted above have been satisfactory addressed.

The recommendation to approve the application remains as per the published report.