Chairman and Members of the Development Management Committee
cc. All other recipients of the Development Management Committee agenda

Your contact: Peter Mannings
Tel: 01279 502174
Date: 16 April 2025

Dear Councillor,

DEVELOPMENT MANAGEMENT COMMITTEE - 16 APRIL 2025

Please find attached the Additional Representations Summary and an Officer response note in respect of the following application:

(A) 3/24/1953/FUL - Erection of a Battery Energy Storage System and associated infrastructure including access, drainage, landscaping and other incidental works at Land Off Ginns Road, Stocking Pelham, SG9 0LR (pages 2 – 12).

Please review these documents prior to and during the meeting this evening.

Yours faithfully,

Peter Mannings
Committee Support Officer
peter.mannings@eastherts.gov.uk

MEETING : DEVELOPMENT MANAGEMENT COMMITTEE
VENUE : COUNCIL CHAMBER, WALLFIELDS, HERTFORD
DATE : WEDNESDAY 16 APRIL 2025
TIME : 7.00 PM

East Herts Council: Development Management Committee
Date: 16 April 2025

Summary of additional representations received after completion of reports submitted to the committee, but received by 5pm on the date of the meeting.

Agenda No	Summary of representations	Officer comments
5a	7 additional neighbour comments have been received, raising the following additional comments which have not already been summarised and addressed within the committee report: a) There is no clear legislation regulating BESS. b) East Herts District Council (EHDC) will be responsible for any disasters if planning permission is granted. c) Proposed batteries will result in more solar farms nearby, with associated loss of farmland d) EHDC need to compensate homeowners for house price devaluation.	Officers have the following responses to the neighbour comments: a) Relevant guidance in relation to the assessment of the planning application (NPPF, Planning Practice Guidance, NFCC guidance EHDC district plan) are referenced with the committee report. b) The applicant will be legally responsible for the operation of the development. c) Solar farms are not proposed as part of this current planning application. d) Loss of house price value as a result of the development is not a material planning consideration.

	e) Who will pay for recycling of the batteries, decommissioning of the site at the end of its use. A Letter has been received from 'Save the Pelhams', a local amenity group raising the following comments (summarised): a) The proposals would contravene NPPF paragraph 102 as it would not promote public safety b) No confirmation has been received from the FRS that fire risk can be appropriately mitigated c) EHDC has a duty not to permit hazardous development (Kane v New Forest District Council), and will be responsible for any harm arising from the development d) There is no clear guidance or British Standards in relation to BESS	e) A planning condition is proposed requiring the applicant to provide details of arrangements including payment of a bond to fund decommissioning of the site, prior to operation. Officers have the following responses in relation to the 'Save the Pelhams' group letter: a) Officers consider the proposals accord with NPPF para 102 as the scheme has developed in consultation with the Fire Rescue Service (FRS) in line with NFCC guidance. b) The applicants engaged with FRS at the pre-application stage. EHDC consulted the FRS during the assessment of the application. FRS have responded that they have no objection to the application. c) BESS proposals are supported as part of the NPPF / Planning Practice Guidance and the Governments Clean Power 2030 plan. Fire risk can be mitigated through regard to the NFCC guidance / consultation with the FRS. The applicant will be legally responsible for the operation of the development. The quoted legal case (Kane v New Forest District Council is not considered to be relevant to the application). d) The applicants have provided a response to the Save the Pelhams letter (appended to the Late Reps Sheet) which lists the relevant legislation, regulation and guidance which

		the development will need to adhere to. The OBSMP submitted with the application confirms that BESS are strictly regulated and fall under the remit of the Supply of Machinery (Safety) Regulations SI 2008/1597.
	e) There was a recent fire at a battery recycling plant in North Ayrshire	e) This incident was in relation to a battery recycling plant and is therefore not considered to be of relevance to the application.
	f) Confirmation of compliance with the NFCC guidance is not possible as the final specification of the BESS is not known.	f) An amendment to condition 15 is proposed to require that the Final Battery Safety Management Plan is submitted and agreed in consultation with the FRS.
	g) There have been a number of fires involving BESS, including the Orsted Liverpool fire and a recent fire at Moss Landing, USA.	g) The applicants have provided a response with some context and comparison on the difference in circumstances with these fires. There are approx. 117 operational BESS sites in the UK (as of Oct 2024) and there has been only one operational BESS fire (Orsted BESS, Liverpool, 2020). This incident involved outdated safety technology and predated current safety regulations and guidance. The following points have been deduced from The Department for Energy Security and Net Zero's (DESNZ) data: 1. Since 2006, BESS have accumulated ~741 years of operation (~6.5 million hours). 2. There has been one operational BESS fire in the UK during their 6.5 million hours of operation. This extrapolates to ~ 0.0000003 failures (3 failures per every 10 million hours) per hour which is multiples times better than the Health and Safety Executive's R2P2 Guidance for

		the 'societally acceptable' safety rate for the public of 1 failure per million hours of operation. In addition, it was noted that the Liverpool and Moss Landing projects were commissioned over five years ago and predate current safety regulations and guidance, including the National Fire Prevention Agency 855 Standard for the Installation of Stationary Energy Storage Systems (2023), as such they were not certified to UL9540A standards.
	h) Applicant failed to provide vital pieces of information such as details of the batteries that are to be installed	h) LFP batteries are proposed in the Outline Battery Safety Management Plan (OBSMP) submitted with the planning application. A Detailed Battery Safety Management Plan will be developed in consultation with the Hertfordshire Fire and Rescue Service (HFRS) and submitted to and approved by the LPA prior to operation. This approach has been verified by the Secretary of State and Planning Inspectorate in appeal decisions and will ensure the Council retains control over the final safety design and further consultation with the HFRS will take place before agreeing the Final Safety Management Plan.
	i) There is no clear guidance on appropriate safety distances from occupied buildings	i) The NFCC Guidance states there should be a minimum of 25m between BESS units and occupied buildings. There are no occupied buildings within 250m of the proposed BESS units.
	j) There are no regulations on how to deal with BESS fires.	j) The Applicant has stated in the response to the Save the Pelhams letter that modus operandi in place across the UK is to boundary cool, contain and let the BESS burn-out rather than apply water directly to a battery fire. This has

		been confirmed by various local fire and rescue services, including Hertfordshire. This is also reflected in the emerging NFCC Guidance. Response to any incident will be tailored to the requirements of HFRS.

Table of errata and updates to reports submitted to Committee.

Agenda No	Paragraph No	Updates
5a	**8.37**	Paragraph amended as follows: *"The Transport Statement stated that during the 18-month construction period, it is anticipated that the development could generate a peak of up to 25 Light Goods Vehicle (LGV) two-way movements and 21 Heavy Goods Vehicles (HGV) two-way movements per day. This is equivalent to a worst-case of just up to three vehicles per hour during the hours of operation. The latest version of the Construction Traffic Management Plan updated the maximum number of LGVs to 9 per day (18 trips) and HGVs would be 5-6 (11 trips). The HGV trips include a maximum of up to 2 articulated vehicles per day".*
5a	**8.43**	Additional sentence to be added to the end of paragraph 8.43: "*Comments that some passing places overrun private driveways are noted. However, the CTMP includes tracking drawings which confirm that there is sufficient space for passing spaces to be accommodated within the public highway*".
5a	**4.21**	Paragraph amended as follows: *"The applicants have submitted an outline Battery Safety Management Plan which sets out the measures proposed to mitigate fire risk. This document includes an assessment against the NFCC guidance which concludes that the proposals are compliant as they include the measures identified, including: large separation distances to the nearest residential dwellings; battery management systems to monitor and identify malfunctions; 3*

		separate access points into the battery compound with a perimeter road allowing approach of a fire from a number of directions; and provision of 2 water tanks with storage for 456,000litres of firefighting water. Battery containers are spaced ~~1.5~~ 3.5m apart (1.5m between batteries and Transformer skids) at the closest point, although the Battery Safety Management Plan sets out why this distance (less than 6m) is appropriate, due to the type of battery system proposed".
5a	**4.22**	Paragraph amended as follows: *"The Fire and Rescue Service has been consulted on the application and raise no objections, with further commentary on compliance with Building Regulations for access for fire fighting vehicles. Officers consider that the proposals are likely to be capable of complying with Building Regulations. ~~subject to provision of appropriate measures such as fire hydrants.~~ No mains water fire hydrants are proposed at the site, due to low water pressure. As such on-site fire fighting water storage is proposed in place of hydrants. This includes two water tanks, to ensure a water supply within 90m of all battery containers, in compliance with NFCC Guidance and as recommended by the FRS*".
5a	**Recommendation, Condition 15**	Condition 15 wording amended as follows: *"Battery Safety Management Plan* *15. No use of the development shall take place until a final Battery Safety Management Plan has been submitted to and agreed in writing by the local planning authority, in consultation with the Hertfordshire Fire Rescue Service. Before the date of first energisation set by condition 3, the measures contained within the Management Plan shall be implemented and thereafter retained for the lifetime of the development.* *Reason: In order to safeguard the safety and amenity of the surrounding area, in accordance with policies DES4, DES5, EQ2, EQ3, and EQ4 of the East Herts District Plan 2018".*

<table>
<tr><th>Point</th><th>Response</th></tr>
<tr><td>Industrial scale batteries are inherently dangerous.

There have been almost 100 BESS fires since 2011</td><td>BESS are not inherently unsafe and are strictly regulated and have to follow very stringent safety standards.

There are approx. 117 operational BESS sites in the UK (as of Oct 2024) and there has been only one operational BESS fire (Orsted BESS, Liverpool, 2020). This incident involved outdated safety technology and predated current safety regulations and guidance (see row below) The following points have been deduced from The Department for Energy Security and Net Zero's (DESNZ) data:

1. Since 2006, BESS have accumulated ~741 years of operation (~6.5 million hours).
2. There has been one operational BESS fire in the UK during their 6.5 million hours of operation. This extrapolates to ~ 0.0000003 failures (3 failures per every 10 million hours) per hour which is multiples times better than the Health and Safety Executive's R2P2 Guidance for the 'societally acceptable' safety rate for the public of 1 failure per million hours of operation.</td></tr>
<tr><td>Reference to Orsted BESS (Liverpool) and Moss Landing (California) incidents</td><td>Both projects were commissioned over five years ago and predate current safety regulations and guidance, including the National Fire Prevention Agency 855 Standard for the Installation of Stationary Energy Storage Systems (2023), as such they were not certified to UL9540A standards.

Notable differences between the Orsted and Moss Landing BESS and the proposed East End BESS include:

<table>
<tr><th>Point</th><th>Liverpool BESS Fire</th><th>Moss Landing Fire</th><th>East End BESS</th></tr>
<tr><td>Battery Chemistry</td><td>• Nickel Manganese Cobalt Oxide (NMC) batteries.</td><td>• Nickel Manganese Cobalt Oxide (NMC) batteries.</td><td>• Lithium Iron Phosphate (LFP) batteries, which provide increased safe and are less prone to thermal runway (when compared to NMC batteries).
• All utility scale BESS projects now use LFP chemistry as they are mu safer and less prone to thermal runaway.</td></tr>
<tr><td>Battery Design</td><td>• Commissioned in 2019, it involved a 'Shipping container' style technology.
• In case of thermal runway, fire spreads</td><td>• Commissioned in 2020, involved a 'shipping container' style technology inside a former turbine hall.</td><td>• The proposed BESS is a smaller 'cabinet design', rather than a 'shipping container' design. In case of thermal runaway, it is possible to isolate the cabinet and contain the fire, rather than it spreading through a container
• There are liquid cooling systems in each cabinet and additional fire-resistant walls. Fire is contained within the cabinet and does not spread to adjacent cabinets.</td></tr>
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<tr><td></td><td>through the whole container.</td><td></td><td>• Large fire testing is been undertaken to validate that fire in a BESS enclosure does not propagate to adjacent enclosures. This is a key safety validation, especially in cases where BESS systems are used i close proximity</td></tr>
<tr><td>Control Systems</td><td>• The control system measured temperature at the module level and was not capable of monitoring thermal runway at cell level.</td><td>• Information not available</td><td>• Advanced control system is capable of 24-hour monitoring at the individual cell level (rather than at module level) resulting in faster system shutdown when a cell thermal runway incident occurs</td></tr>
</table>

This has been recognised by the Secretary of State in a planning decision in March 2023 for a solar and BESS scheme at a site in Telford, Shropshire. They stated that battery fire risk had been a concern some years ago, however technology has moved on and battery storage is recognised in national policy and guidance (Ref. APP/C3240/W/22/3293667).</td></tr>
<tr><td>Applicant failed to provide vital pieces of information – details of the batteries that are to be installed</td><td>The East End BESS proposes LFP batteries and the Outline Battery Safety Management Plan (OBSMP) submitted with the planning application confirms that the BESS will include:

- Cell module level control
- 24/7 Remote Monitoring and Control and automated shut-down
- Fre detection and suppression systems (FDSS) fitted to containers.
- A certified UL9540A Battery Management System design .

A Detailed Battery Safety Management Plan will be developed in consultation with the Hertfordshire Fire and Rescue Service (HFRS) and submitted to and approved by the LPA prior to operation. This approach has been verified by the Secretary of State and Planning Inspectorate in appeal decisions and will ensure the Council retains control over the final safety design and can consult the HFRS and local residents before agreeing the details.</td></tr>
<tr><td>There is no confirmation available from the (HFRS) to the effect that the risks of fire</td><td>• Two meetings were held with HFRS in March and July 2024, prior to submission of the planning application
• The scheme was amended in response to HFRS’ requirements, resulting in the addition of a second water tank.</td></tr>
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and explosions have been appropriately mitigated	• HFRS submitted a response to the planning application in December 2024 and raised no objection to the scheme. They requested the development complies with building regulations. The scheme complies with all relevant building regulations. • Consultation with HFRS will continue throughout the development's construction and operational phases as secured through planning condition.
EHDC has a legal duty not to actively create or permit a hazardous development. The existence of this duty derives from the Court of Appeal's judgement in the 2021 case of Kane v New Forest District Council.	The Kane v New Forest District Council appeal was determined in 2001 (not 2021) and related to a planning permission granted in 1985. BESS installations are essential infrastructure and not a hazardous development. As per the Government's Clean Power Action Plan 2030, 27GW of BESS is required as compared to the current 5GW operational.
Batteries are dangerous and unregulated	As set out within the OBSMP submitted with the application, BESS are strictly regulated and fall under the remit of the Supply of Machinery (Safety) Regulations SI 2008/1597, which cascades out to the following relevant legislation, regulations and guidance: <u>Legislation</u> - Construction Design and Management (CDM) Regulations 2015 - Control of Substances Hazardous to Health Regulations 2002 – UKSI 2002/2677 - Electrical Equipment (Safety) Regulations SI 1994/3260 - Electro-magnetic Compatibility Regulations SI 2006/3418 - Fire Safety (Employees' Capabilities) (England) Regulations SI 2010/471. - Fire Safety Order 2023 - Fire Safety Act 2021 - Health and Safety (Safety Signs and Signals Regulations 1996) - Waste Batteries and Accumulators Regulations 2009. <u>Regulation</u> - National Fire Protection Association 855 – Standard for the Installation of Stationary Energy Storage Systems (2023)

	- UL9540A – BESS Test Methods - UL1973 – Standard for Batteries for Use in Stationary, Vehicle Auxiliary Power, and Light Electric Rail Applications - FM Global Property Loss Datasheet 5-33 – Lithium-Ion BESS (Jan 2024) - International Electrotechnical Commission (IEC) 61508 - Functional Safety of Electrical/Electronic/Programmable Electronic Safety-related Systems <u>Guidance</u> - National Fire Chiefs Council (NFCC) Grid Scale Battery Energy Storage System planning – Guidance for FRS (Nov 2022) and emerging guidance. - Department for Energy Security and Net Zero Health - Safety Guidance for Grid Scale Electrical Energy Storage Systems (2024)
There is no clear guidance on appropriate safety distances from occupied buildings	The NFCC Guidance states there should be a minimum of 25m between BESS units and occupied buildings. There are no occupied buildings within 250m of the proposed BESS units.
There are no regulations on how to deal with BESS fires.	The modus operandi in place across the UK is to boundary cool, contain and let the BESS burn-out rather than apply water directly to a battery fire. This has been confirmed by various local fire and rescue services, including Hertfordshire. This is also reflected in the emerging NFCC Guidance. Response to any incident will be tailored to the requirements of HFRS.
Regarding the Orsted BESS in Liverpool, ‘once water was applied, the resulting runoff contained hydrofluoric acid (HF). Scientific advisers identified the potential for the smoke plume to contain Hydrofluoric Acid and Hydrochloric Acids (HCl) as a product of burning lithium cells.’	The Significant Incident Report from the Orsted BESS states : - Run-off was periodically checked for contamination, which was low and run-off was mainly contained to the site. - Bureau Veritas (BV) scientific advisers identified the potential for the smoke plume to contain HF and Hydrochloric Acids (HCl), however, the dilution rate within the plume deemed the concentration as negligible.
West Byrehill Industrial Estate incident	The West Byrehill site is a battery recycling plant and was recycling mobile phone and laptop batteries. It was not a BESS installation and did not recycle utility scale batteries.

Refused planning appeal by Enso Green Holdings, whereby the Inspector noted whether sufficient information on fire safety had been provided was a key matter. The Inspector stated 'not only would the tanker drivers be at risk from the fire and heat, but also the fire would also be likely to contain a range of toxic fumes.'	This quote is out of context. This element of the Appeal focusses on an assumed requirement that firefighting water runoff would need to be tankered off site, whilst the fire was still in force. This was because that particular site had very limited space and attenuation capacity and it was assumed water would be applied directly to a battery fire. The East End BESS site includes two significant sized attenuation basins lined with an impermeable layer to prevent infiltration. A series of pumps and valves are proposed to isolate the basins from the rest of the drainage network and wider environment, which would allow for any water to be safely stored, tested and if necessary disposed. Additionally, as above, fire and rescue services would not apply water directly to a battery fire and as such water runoff would not be contaminated.
Planning Appeals	Recent planning appeals have considered fire safety in the context of BESS development. All the appeals referenced below have been allowed. The following points are noted: i. The Secretary of State has acknowledged that robust fire risk measures have to be put in place and that these can be secured by planning condition. They noted that battery fire risk had been a concern some years ago, however technology has moved on and battery storage is recognised in national policy and guidance (Ref. APP/C3240/W/22/3293667); ii. The Inspector noted the local fire and rescue service did not object to the proposed development and that the provision of an updated Fire Safety Strategy could be dealt with by condition (Ref. APP/V4630/W/24/3347424); and iii. An Inspector has noted that whilst there was significant local concern regarding topics including fire safety, they had not been presented with compelling evidence to substantiate this claim. This appeal was allowed and the BESS was approved (Ref. APP/Q4625/W/24/3343977).