



The countryside charity
Somerset

President Mariella Frostrup
Chair Hugh Williams
Planner Fletcher Robinson MSc

26 February, 2024

To: Somerset Council, Planning East
For attention of: Nikki White, Case Officer

Dear Sirs,

Re: 2023/1070/FUL- Construction and operation of a Battery Energy Storage facility, access, fencing, CCTV, lighting, infrastructure- Land N. of Styles Close, Frome, Somerset

CPRE Somerset wish to OBJECT to this proposal.

The Hawkchurch BESS appeal decision, 16 February 2024

In this letter we respectfully draw the attention of the Council to the recent appeal decision decided 16 February in East Devon- APP/U1105/ W/23/3319803- Pound Road BESS, Land NE of Axminster National Grid sub-station, Pound Road, Hawkchurch EX13 5XN, which was dismissed on safety grounds (‘ The Hawkchurch appeal’).

The Inspector stated that the particular proposal for containers showed separation distances which fell substantially and consistently short of the national recommended standard; that the safety risk was compounded by only one access, inadequate measures on the containment of firewater, and the potential to contaminate a watercourse (in that case an aquifer rather than a stream as in the present proposal). Similar considerations apply in the present case.

A Battery Safety Management Plan (BSMP) had been submitted in the Hawkchurch case as a suggested condition, and a draft had been provided. However, the Inspector ruled that the separation distances, number of containers and access were clearly shown on the submitted plans, and that the BSMP would be limited to additional details and could not override or change the submitted plans [Hawkchurch appeal, para 77]. The Inspector also emphasised that Planning Practice Guidance has been updated to encourage local planning authorities (as well as fire services) to refer to the guidance published by the National Fire Chief’s guidance (see below).

Close Proximity of residential housing and Rodden Lake stream to the site

The site is only 32 m away from the nearest garden, and 50m away from the nearest residential property. The site is on a slope immediately above the adjacent Rodden Lake stream. According to our research, the site location is unusually close to such highly sensitive receptors. A BESS facility was recently allowed at appeal on a site at Monk Fryston, Selby which the Inspector described as ‘ *rural in nature, with no residential property in the vicinity*’ [APP/ N2739/W/22/3290256].

There are many isolated BESS facilities in the countryside across the UK. There is no evidence provided in the planning application which would support a claim that it is necessary for a BESS to be situated adjacent to an existing Bulk Supply Point sub-station.

Given the documented major safety and pollution risks of BESS facilities, we have serious concerns about whether it can be operated safely so close to 1. residential housing, and 2. an adjacent water-course.

Recent Update to Planning Practice Guidance

The MP for Rother Valley recently tabled a relevant question in the House of Commons on 17 October 2023 for the Secretary of State for the Department for Energy Security and Net Zero:

Q. ' To ask the Secretary of State if she will make an assessment of the potential merits of locating battery storage sites away from residential areas''

A.' The government has recently updated Planning Practice Guidance [PPG] which encourages battery storage developers to engage with local fire and rescue and local planning authorities to refer to the guidance published by the National Fire Council. The government intends to consult on including battery storage systems in the environment permitting regulations at the earliest opportunity'.

This change to PPG means that if an incident were to occur which is harmful to persons or property in Styles Close, or to the environment, the Council in these specific circumstances of a BESS proposed to be located adjacent to housing and to Rodden Lake stream would not be able to absolve itself from a large degree of responsibility for the consequences given the well-documented risks to safety posed by BESS facilities, for example by claiming that harms arising from incidents would be the responsibility of another regime, such as the Devon and Somerset Fire and Rescue Service (DSFRS).

Non-compliance with National Fire Chief guidelines

The National Fire Chief guidelines referred to above state that information should be provided to the fire service via the local planning authority in the first instance to allow an initial appraisal to be made, with appropriate evidence to support any claims made on performance. However, Devon and Somerset Fire and Rescue Service (DSFRS), in its comments posted 23.12.23 on the planning portal for this planning application, has allowed the applicant to provide minimum information, by saying that it can be dealt with by conditions. It is not clear to us why DSFRS appears not to be following NFC guidance, when other fire services are doing so.

We would expect the DSFRS not to approve a Battery Safety Management Plan if it deviates in such key matters from NFC guidance. Furthermore, we would expect a BSMP to be agreed with DSFRS prior to commencement, rather than prior to first use, and in our opinion this should always be conditioned.

The present proposal clearly appears not to comply with key NFC guidance. For example, this recommends a standard minimum spacing between units of 6m to allow for firefighter access. The separation spacing on the Site Layout plan is not shown, but (by reference to the scale and the 5m wide access gate shown), it appears to be substantially and consistently less than 6m. There is also no perimeter road around the site as recommended, nor a second access to account for opposite wind conditions. The Inspector at the Hawkchurch appeal said that there was no evidence before the Inquiry that any particular battery specification would be safe with less than the NFC recommended separation distance, and that while the Appellant had produced a diagram indicating the prevailing wind at the site is southwest to justify a single access, the diagram showed considerable variation.

In these circumstances, we would expect the application to be refused, given the recently updated Planning Practice Guidance and the Inspector's reasoning in the Hawkchurch appeal decision.

Environmental harm

The argument made in the planning application against the need for external bunding, based on the assumption that water will not be used for fire extinguishment, fails to address the reality of thermal runaway incidents. Such events cannot be ruled out, as was accepted by all parties at the Hawkchurch appeal. The aftermath involves dealing with contaminated water run-off. The absence of a strategy to manage this run-off in the planning stages overlooks the potential for environmental harm.

Thermal runaway in Battery Storage Systems (BESS) employing lithium-ion batteries presents significant safety risks. This phenomenon occurs when a battery overheats, leading to a self-sustaining cycle of increasing temperature. To halt this process, cooling the battery containers externally with a constant stream of water is necessary*. However, this solution introduces further complications. The cooling process can last for days, resulting in large volumes of water contaminated with highly corrosive substances like hydrofluoric acid and copper oxide, which are by-products of battery fires. These contaminants pose severe environmental risks if they infiltrate water-courses , highlighting the necessity of measures to prevent such occurrences.

The proximity of homes and Rodden Lake stream exacerbates these risks and the absence of proposals for external funding to contain run-off water in such scenarios is concerning. External bunding is a containment measure designed to prevent the spread of of contaminants, ensuring that hazardous substances do not escape into the environment.

* This point was made by Dame Maria Miller, MP for Basingstoke, when putting forward a private member's bill- Lithium-Ion Battery Storage (Fire Safety and Environmental Permits) Bill, in September 2022.

Airborne releases of toxic gasses

The Incident Response Plan (at Section 9) says that 'releases' will be air-borne away from Styles Close by the prevailing WSW wind. This is unacceptable given the proximity of Styles Close, as there will be a health danger to the adjacent residents from toxic gas releases if the wind is in another direction.

Unacceptable impacts on residential amenity- noise

We also have concerns about the impacts on residential amenity. We note that Frome Town Council, in its strong objection to this planning application, has offered to work with the developer to find an alternative and more appropriate site, both on safety and residential amenity grounds.

Bedrooms of the nearest properties will look down the slope into the site below them. This raises serious questions about the efficiency of the proposed acoustic fence, whether it is 4m or 5m high, as sound travels upwards as well as sideways.

Furthermore, while acoustic fences reduce noise best from the nearest rows of inverters, transformers or operating BESS cooling systems, *'the noise reduction diminishes for additional rows of equipment that are successively farther away'* *. This would clearly be a problem for the bedrooms looking down into the site.

* Statement from 'How to Reduce Noise from Battery Storage System Operations through Effective Design', Dudek Corporation website. This leading environmental, planning and engineering firm was founded in 1980 in Encinitas, California, and employs 700 + employees

In SRC's recent response to the objection by Planning Potential on behalf of residents, it is stated that the proposed development will operate an average four hours a day, with six hours maximum. However, it is not specifically confirmed that there will be no noise from fans or hum from the transformers outside that time period. Furthermore, it does not state what hours it will be operating. We presume that activity will be at night when the energy can be taken down at a cheaper rate, as well as during the day. Any noise from the fans and hum from the transformers would be magnified in quiet night-time ambient conditions, when the adjacent residents will be trying to sleep.

These specific points about the efficiency of the acoustic fence in such circumstances have not been addressed by the Environment and Community Officer in the comments posted online.

Harms to Visual Amenity

The Applicant relies heavily on an argument that the visual amenity of residents in Styles Close has already been harmed by the existing sub-station. However, there is no principle in English planning law that harmful development justifies more of the same. Therefore this argument is wrong in law and incongruous with the objectives of sustainable development in the NPPF, which has social and environmental objectives, as well as economic ones.

The Zone of Theoretical Visibility Analysis (ZTV) provided in the planning application suggests that many Frome residents will have their visual amenity blighted by this visually intrusive industrial development, including those on Styles Close. Many houses on the other side of the railway line will be equally impacted, including along Boundary Avenue, St Mary's Road, St John's Road and Wyville Road. No viewpoints have been included in the LVA Appendix from NNW and NW of the site despite the proximity of housing to the site on that side of the railway line.

The viewpoints of the site in the LVA Appendix show beyond any doubt that the residents of Styles Close will be looking down into an industrialised landscape, exacerbated by cumulative effects. Our comments on the unacceptable impacts on residential amenity are set out in a separate section of this letter.

Cumulative Effects

The effects of positioning the new development adjacent to the existing substation will extend and intensify the landscape and/or visual effects of the first development. We consider that the proposed accumulation in this area of related types of electrical development will substantially alter the landscape character of this part of the Rodden valley, which has considerable visual amenity value due to its closeness to the town. The combination of the existing and new development will be dominant and overbearing in the rural landscape setting of this part of town.

Photomontages

There are no photomontages provided in the April 2023 LVA showing the many components of the scheme, including the battery storage units, inverters, transformers, etc. A small selection of photomontages (two viewpoints close to the site access, and one from the west) were posted in September 2023 and are not part of the LVA. Those photomontages show only two buildings, not rows of battery containers, inverters and transformers, which have been omitted from the images. No photomontages have been provided from the other side of the railway line, where many houses will have a full view of the site as they will be looking at a rising slope. No photomontages have been provided from the north which would illustrate the cumulative effects of adjacent development.

The Rodden Lake stream occupies a rural landscape adjacent to Frome, and is locally much valued for the visual amenity that it provides. The LVA claims to be compliant with the *Guidelines for Landscape and Visual Impact Assessment*, 3rd edition, issued by the Landscape Institute (“GLIVIA’). GLIVIA says that the purpose of photomontages is to illustrate the effects of the development on viewers rather than to illustrate the proposals themselves [GLIVIA- 8.19].

In preparing photomontages key requirements include:

- All viewpoints that are to be used should be photographed at locations that are representative of the view in question and of the character of the location;
- The photomontages should show relevant components of the development that are predicted to be visible from each viewpoint.

[GLIVIA, 8.22]

Conclusions

1. The Hawkchurch appeal decision [APP/U1105/W/23/3319803, dated 16 February 2024] shows that separation distances of the units below 6m, a single access, and inadequate firewater containment (all as now proposed in the present application) are all valid planning reasons for refusal, and that the provision of a Battery Safety Management Plan (BSMP) would be limited to additional details and cannot override or change the submitted plans, which in our view should be refused.

2. The acoustic fence is likely to be ineffective, or at best inefficient, as the site is on a slope below housing. Sound travels upwards as well as sideways and will impact bedrooms above the fence. This point has not been addressed in the Community and Environment Officer's comments.

3. The Applicant's reliance on a prevailing wind to justify a single access, and to take away airborne toxic gas releases, was not accepted in the Hawkchurch appeal decision, as wind can change direction. The health and safety risks to residents and first responders are unacceptable.

4. The proposed development is not capable of being fairly and accurately visually understood by the planning committee within its landscape context, as photomontages from a good range of representative viewpoints along Styles Close and from the north of the railway line showing relevant components of the development have not been provided in the LVA. Those photomontages that were provided later, after the LVA was posted online, show only a limited number of oblique views in the vicinity of the site, and omit images of rows of containers, inverters and transformers. There are no photomontages of views of the development from the many houses on the other side of the railway line, whether illustrating the new development, or the cumulative impacts arising from its proposed position next to related development. The proposed development is on a rising slope and would be highly visible, particularly in winter, by such receptors. The LVA viewpoints confirm that the residents of Styles Close would completely lose their visual amenity due to the cumulative effects of the additional development blighting the rural outlook.

We consider that the BESS is wrongly located, and the planning application should properly be refused.

Yours sincerely,

Hugh Williams
Chair
CPRE Somerset

Fletcher Robinson MSc Planning
Trustee and Planner
CPRE Somerset

