

Reply to: Clerk to East Claydon Parish Council

Carole Jackman
1 Darley's Close
Grendon Underwood
Aylesbury
Buckinghamshire HP18 0SE
Email: parishclerk@theclaydons.org
Tel: 01296 770 568

23 October 2024

Zenab Hearn
Buckinghamshire Council

East Claydon Parish Council

Comments on

23/03875/APP: East Claydon Battery Energy Storage System Flood Risk Assessment

Applicant's Covering Letter Dated 1st October 2024

1) Risk of pollution to controlled waters / 2) Risk to groundwater quality / pollution

The Applicant indicates that, in the event of a fire at the BESS, penstocks would be open as the default position until such time as the fire services are on-site. The penstocks would be closed before any water is used to minimise spread of the fire, thus allowing capture of contaminated water. However, this does not appear to allow for the fact that if a fire event occurred during rainfall, or where there is standing surface water, contaminated water would flow into surface water drains and onward to local watercourses.

3) Provision of an acceptable flood risk assessment

The Applicant has made the following statement in their previous submissions:

"ES Vol. 11: Appendix 11.1 [2c) Flooding risk was not assessed over the farm since it requires observations to be made over a number of years. Appendix 2 at the end of this report details the observations required.]"

In response to that comment, we made the following observation (East Claydon Parish Council; Consultation Response by East Claydon Parish Council; 5th February 2024), "This statement illustrates the Applicant's ill-judged reliance on desktop analyses. Appendix 2, Table 3 assesses the flood risk during winter as occasional to frequent (i.e. once in 3-9 years). Reference to comments in Vol. 4 shows that the risk is likely to be at the more frequent end of this spectrum. It is extraordinary that the Applicant has not undertaken a formal assessment of flood risk for the site."

The inadequacies of their approach were also highlighted by the Environment Agency and the results of a modelling study have now been presented. We are not equipped to judge the merits of the study but have raised some questions in the comments below. However, it is notable that this again is a desktop analysis in the absence of an on-site assessment during winter months. What the study does

confirm is the high risk of flooding to substantial parts of the proposed development site; a point we have made repeatedly as a major concern. We would draw particular attention to the flood risk on the proposed temporary haulage route and along the East Claydon Road, which can become impassable to light vehicles on a number of occasions each year.

Given the level of flood risk in the area, it is imperative that any application to install electrical infrastructure in the area is required to undertake a full assessment of the cumulative impacts not only on the corresponding proposed development site but also on adjacent sites, agricultural fields, local roads and PRowS.

East Claydon Battery Energy Storage System Flood Risk Assessment

Executive Summary

This points out deficiencies in the Applicant's previous submissions of flood risk assessment as failure to:

- Establish a reliable baseline fluvial flood risk evidence base for the site.
- Establish a reliable baseline surface water flood risk evidence base for the site.
- Assess the impacts of the temporary works on flood risk.

We would add to this:

- Failure to establish the effects of the development on flood risk outside the site boundaries.

Para 2.3.2 The Applicant is placing complete reliance on the validity of Flood Zones defined by the EA. However, the EA has indicated that these zones are not based on modelling. Thus, conclusions on the Sequential Test are not safe.

Para 2.3.3 We question the conclusion that the development would provide wider sustainability benefits to the community that outweigh the flood risk (Exception Test). What is the evidence for this?

The Applicant goes on to state, *"This report assesses the flood risk in the area and outlines mitigation that has been included in the scheme design to ensure the safety of site users and the property. It also demonstrates that there will be no risk of increase in flood risk offsite."*

The responsibility for deciding if the development meets the requirements of the exception test falls to the local authority however, it is considered that the flood risk at the site is manageable for this development throughout its projected lifetime. The FRA concludes that development of the site will not increase flood risk elsewhere."

We challenge this conclusion on two counts. First, it is not clear whether the modelling has taken into account the effects of the development itself on water hydraulics and the impact on flood risk. Secondly, no attempt has been made to determine any cumulative effects with other electrical infrastructure projects, notably, the proposed replacement National Grid substation.

The present iteration of the proposed site layout allows for attenuation ponds adjacent to the main infrastructure. How has this design in terms of capacity and run-off rates been aligned with the flood risk modelling as presented?

Table 2-2: Peak River Flow Climate Change Allowances in the Upper and Bedford Ouse Management Catchment (1981-2000 baseline)

The Applicant notes that the EA requires that, for Essential Infrastructure developments located in Flood Zones 2,3a or 3b, the 'Higher central' allowance should be used to assess climate change impacts on Peak River Flows. They go on to say that the development has a 40-year lifetime and therefore falls into the 2060s epoch. This is incorrect. The National Grid has stated that the connection date for the proposed BESS could not be before 2030 when, it is anticipated, a new substation would have been constructed. This would take the lifetime of the BESS into the 2070s and

so an uplift of 30% rather than 11% should have been adopted. In any event, the Applicant has treated the anticipated flow changes as being a stepped progression whereas it is more likely to be a more linear progression and so planning for a worst case would be more prudent. This is reinforced by the EA advice reproduced under **2.4.2** whereby, for developments with a lifetime between 2061 and 2100, Flood Risk Assessments should assess the central allowance for the 2070s epoch for both the 1% and 3.3% annual exceedance probability events. The discrepancy between the two approaches is repeated in **4.1.5**.

Assuming a 2030 connection date, the site as defined in **Fig. 1-1** and all subsequent figures, is incorrect since connections to the NG substation would not be routed as indicated.

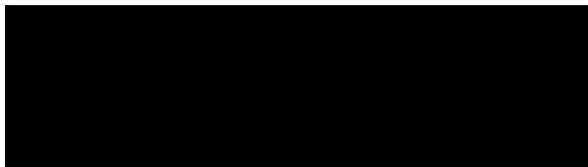
4.3.1 Results of the modelling exercise suggest that for 1% + CC event, a freeboard of some 500mm over the anticipated fluvial flood level and 340mm over surface water flooding would be seen. It is not clear whether changes in flow patterns and water retention post-development (soil stripping, ground compaction, increase in impermeable surfaces) have been taken into account. What would be the status of the proposed attenuation ponds under these circumstances? What would be the cumulative effects with other proposed electrical infrastructure developments?

4.3.2 It is concluded that the proposed temporary haul road would not contribute further to flood risk but the modelling demonstrates (**Fig. 4-13**) that the inherent flood risk for the proposed route renders it wholly unsuited to the intended purpose. (We have made this point on numerous previous occasions). This is acknowledged in **4.3.3** where it is stated that the temporary access track will not be in operation during flood events. In our experience, this could involve protracted periods and implies that construction traffic is likely to be redirected via Granborough Road, although that is also prone to flooding.

How does the Applicant intend to prevent fouling local roads with mud when using this temporary haul road?

Conceptual Drainage Strategy

This document contains a superficial plan only. It is not clear where surface water drainage would be directed or how fire water would be retained in the event of a fire incident.



For East Claydon Parish Council