

## Grounds for Objection

I am submitting this objection in relation to the proposed Battery Energy Storage System (BESS) and associated infrastructure within the Fenwick Solar Farm project. The following concerns are raised based on a detailed analysis of the Flood Risk Assessment (FRA) (Appendix 9-3) and Environment Agency (EA) climate change guidance as updated in January 2025.

### 1. Location of BESS in Flood Risk Zones

Although the developers claim the BESS is located within Flood Zone 1, the FRA identifies significant areas of the site as falling within Flood Zones 2 and 3. Furthermore, even in Flood Zone 1, the Environment Agency's breach modelling for the River Don indicates potential flood depths of up to 0.85m in the event of a failure.

This casts doubt on the site's suitability for critical infrastructure like BESS and substations, which

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must be protected against both fluvial and residual flood risks throughout their operational life.

### 2. Use of Outdated Climate Change Allowances

The FRA and drainage strategies rely on 1% Annual Exceedance Probability (AEP) plus 40% climate change uplift, based on mid-range (2050s) scenarios. However, the Environment Agency's updated guidance (effective January 2025) mandates:

- Use of upper-end (95th percentile) allowances for the 2070s for infrastructure with a design life exceeding 60 years.
- Recalculated peak rainfall intensity increases (up to 55% in Doncaster's hydrological catchment).
- Application of these revised values in both fluvial and surface water flood modelling.

The failure to update these values in the FRA undermines its conclusions and invalidates the Exception Test justification under NPS EN-1 and NPPF.

### 3. Inadequate Mitigation and Drainage Design

While the scheme includes bunds (e.g. 1.15m bunding for the BESS platform), these are based on outdated flood scenarios. The drainage infrastructure-including swales, attenuation basins, and soakaways-has been designed using lower rainfall assumptions. This leaves the site vulnerable to increased runoff volumes and flood depths under updated EA projections.

There is no evidence in the documents that sensitivity testing was carried out using upper-end flood scenarios or rainfall intensity figures from UKCP18 or EA 2025 tables.

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### 4. Failure to Demonstrate Lifetime Flood Resilience

The infrastructure's lifetime flood safety is not demonstrated in light of revised climate science and national policy. The BESS in particular poses a risk of environmental contamination, fire, and explosion in the event of inundation. It is vital that modelling extends not just to the 2050s but to 2080-2100 horizons.

### Request for Action

Given the material deficiencies in flood modelling and drainage design, I request:

1. A complete re-evaluation of the FRA and drainage strategy using EA 2025 upper-end allowances for the 2070s.
2. Publication of updated hydraulic modelling, design flood levels, and mitigation drawings.
3. A pause in the DCO process until flood safety and climate compliance are independently verified.

### Conclusion

This objection is submitted to protect the long-term safety of the local environment, residents, and emergency services. Any approval based on outdated flood risk data risks breaching national planning guidance, weakening infrastructure resilience, and exposing Doncaster to avoidable risks.

Signed:

Rachel Reed

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