

Section 3 Principal

Introduction

This Supplementary Written Representation is submitted by Fields for Farming (FFF), a community group representing the interests of residents in Sturton le Steeple, Fenton, Littleborough, North Leverton, and North and South Wheatley (the “Residents”). It builds upon our initial Relevant Representation (RR-035, dated 28 August 2025) and provides further evidence and analysis on the specific subjects of Principal – item 3 on the agenda of the Issue Specific Hearing on 12 November 2025. It seeks to oppose the application for a Development Consent Order (DCO) by Steeple Renewables Limited (the “Applicant”) for the Steeple Solar Farm and Battery Energy Storage System (BESS) (the “Proposed Development”).

3.1 Need

The need for additional low carbon generation is clear, not only to replace the two coal-fired power stations at Cottam and West Burton, now partly demolished, but also to produce power required by the nation without compromising the government strategy of moving towards a net-zero future. This is in line with paragraph 3.15 in NPS3

The proposal is to use an area of 1700Ac to produce “up to 400MW” on the original proposal, now reduced by a 10-15% reduction in the active area. In our view, taking this amount of BMV land out of production, permanently is the wrong strategy in the search for a greener future. We would be better served using the existing brownfield site at West Burton to produce power in a more concentrated format and to offer a permanent background in place of intermittent solar power to feed into the grid.

As an example, the power density of Nuclear power is 92% against the 27% of solar. Or, otherwise stated, Ground Mounted Solar uses 19m²/MWh against 0.3m²/MWh for nuclear. This is driven by a combination of Capacity Factor, Energy Density and Operational Footprint. Thus. the same power could be generated using the existing industrial or brownfield sites.

In addition, the whole process of stepping up to high voltage and distribution losses via the Power Grid network contrast with the solution of siting PV solar on houses and commercial and industrial premises where power can be consumed locally.

The development and use of SMR has been enthusiastically welcomed by the Secretary of State in his recent speech at COP30, and it is interesting to note that the Italian Government, recognising the need to retain good agricultural land has approved a ban on new ground-mounted PV solar installations on productive farmland, following a proper wider consideration of views and evidence from their Ministry of Agriculture.

[Sources: Ultimate Fast Facts Guide to Nuclear Energy, US Department of Energy 2019, Ourworldindata Hannah Ritchie June 2022, Mahalik 2023 (Springer.com/ article/10.1007/s10098-023-02689-8, National Trust Renewable Energy Guidance, Noble Green Energy, energy.ec.europa.eu, worldnuclear.org]

3.2 Site Selection

3.2.1 Applicant’s Selection Process

Chapter 3 - Site Description, Site Selection and Iterative Design Process

Paragraph 3.5.18

“Therefore, to form an effective cluster of PV arrays to generate a similar amount of power as the proposed DCO site, the alternative site search has considered that the following parameters would be required to be an effective comparison to the proposed DCO site area. • 3 x 3 adjoining land parcels of a minimum of 60.7Ha; • Then each cluster being within 5km of one another”

Paragraph 3.5.20

“Three sites were identified in this process with potential as alternative site locations. These three sites are labelled as follows

- Site A – land between Worksop and Retford – approximately 1408.3 ha and is located approximately 12.3km from the POC at West Burton A Power Station.
- Site B – land south of Gringley on the Hill - approximately 754.5 ha in size and located 5.6km from the POC at West Burton Power Station.
- Site C – Land around Northorpe - approximately 1159 ha in size and is located 11.5km away from the POC at West Burton Power Station.

Paragraph 35.34

“It is also advantageous to find a site which has few landowners to minimise the complexity which can arise when dealing with multiple landowners as part of the same project. As discussed above for a project of this nature, an area of at least 60.7 hectares under either single or a couple of landownerships was deemed preferable when looking for a suitable site. In addition, it was considered that any such sites of 60.7 hectares would need to be within 5km of one another (due to the Applicant’s experience with developing similar projects) and preferably there would be a minimum of 3 such parcels near to each other for them to reasonably form a potential site option.”

[Source RES Proposal Chapter 3 - Site Description, Site Selection and Iterative Design Process, Document Reference: EN010163/APP/6.2.3]

From the above information all from the Applicant’s own documentation, it is difficult to determine if the applicant has undertaken a true alternative site assessment. We have previously put forward why this site is no better than the three detailed above, but there does not even appear to be consistency in approach of the alternatives selected. It is purely driven by:

- the connection (which is available to all four of the options as the connection agreement is with the applicant not the land)
- only having to lay 700m of cable to facilitate the connection
- the willingness of a single, absentee landowner to make the land available.

In addition, in their presentation, the Applicant indicated that alternative greenfield sites had been considered and discounted. but no mention was made about considering the brownfield sites in and surrounding West Burton and Cottam, specifically the old PFA ash resettlement areas.

3.2.2 The Correct Approach to Land Selection

Under the Government Development Guidance NPS EN-3 PV ground mounted solar should best be sited on brownfield land and poorer quality unproductive land.

- BMV land should be avoided. The ‘most compelling evidence’ would be required if it was to be used.
- The fact that BMV land happens to be available from a (landowner in this case) who wants to abandon farming is not compelling evidence.
- The fact that it is difficult to find poorer quality land within the district is not compelling evidence.
- Local authority boundaries are not to be used as a limiting factor in the search for alternative options. If there is no poor-quality land within a district the only logical conclusion is that industrial scale solar plants are not the right renewable solution for that area.

[Source Comments of Planning Inspector Elizabeth C Ord LLB(Hons) LLM MA DipTUS Appeal Ref: APP/D3505/A/13/2204846 Valley Farm, Wherstead, Ipswich, Suffolk, IP9 2AX 2 June 2014]

3.3 Size

At 888 Ha, the overall size of this proposal is such that it completely surrounds the village of Sturton le Steeple and heavily impacts the villages of Fenton, North Leverton and South Wheatley, with a limited impact on the hamlet of Littleborough. And, as noted above, a more compact solution is available using an alternative power source, giving a much better output per area than the 2.67 or 3.84 MW/Ha mentioned. We also note that the alternative land parcels considered were all smaller at around 550 Ha, and did not completely swamp the villages.

3.4 Overall Generating Capacity

No comments to avoid repeating the above arguments

3.5 Grid Connection

Clearly there is currently capacity for the project as presented to connect to the grid at West Burton Substation. Given the almost inevitable approach of building one or even two SMR units plus possibly another CCGT, for which outline planning already exists, then capacity for all three solutions would potentially exceed that available.

3.6 Battery Energy Storage System

The BESS system is required only because the PV Solar arrays are intermittent producers of power, specifically generating most power when it is least needed by the consumer.

Although the UK is a major and growing market for battery energy storage solution, growing from 2.8 to 6.8GW in the last three years, there is some controversy surrounding these units, including:

- **Degradation**
 - Traditional generation resources experience degradation in only two dimensions—output and efficiency. However, storage projects may degrade based on three other performance metrics:
 - degradation with respect to its charging speed (i.e., how quickly a battery can be fully charged)
 - battery degradation: The limited economic lifespan of lithium-ion batteries due to cycle count and calendar ageing poses a risk.
 - Energy loss over the life of the project.
- **Fire risk:** High-profile battery fires globally have increased local scrutiny. These fires are caused by thermal runaway, which can be triggered by short-circuits, physical damage, or manufacturing defects.

- Supply chain reliance: The UK relies heavily on imported critical minerals like lithium, creating potential vulnerabilities and affecting cost and availability.

We urge the Inspectors to seek detailed responses on these potential problems.

3.7 Technology

We understand that the final choice of technology is as yet not decided upon. We would like the Applicant to comment on the difference in spacing and design between the lines of PV array as currently proposed in the application with those that would permit a mixed use, including grazing land within the development. As we understand it, the spacing and design for mixed PV and sheep grazing for example is different, and this would affect the overall power generation output.

In addition, we would also like to point out that the true measure of a sustainable engineered system is to be measured over its entire life-cycle, taking into account the energy (or CO₂) embodied in the processes of production and disposal as well as the environmental impact, and urge the inspectors to view the project on this basis.

[Source Sustainability in Engineering Design, Johnson & Gibson, Elsevier Press]