PHILIP HEARD MBE MSc BSc CEng FIMechE FRAeS

IP NUMBER [redacted]: FOSSE GREEN DEADLINE 4 SUMMARY

The submission below highlights significant gaps, inconsistencies, and unresolved issues in the Applicant's responses to the Examining Authority's (ExA) Second Written Questions (REP3-045) and in the Revised Solar Technical Guide (REP3-037). It demonstrates that key matters remain unaddressed, that several Applicant statements are contradicted by their own evidence, and that material design changes are required.

1. Failure to Address Sequential and Cumulative Impacts

The Applicant dismisses the need to assess sequential development, despite the ExA's explicit concern that phased construction over many years may cause greater long-term disruption. No evidence is provided to demonstrate otherwise. The Applicant also fails to confirm when the required Interrelationships Report will be submitted.

2. Misinterpretation of Carbon Intensity Assessment

The Applicant refuses to assess GHG offsetting using anticipated carbon intensity for **May 2033**, arguing that future carbon intensity depends on schemes like Fosse Green. This misreads the ExA's question: in May 2033 the scheme will not yet have contributed any output, so the applicant's reasoning is irrelevant. The requested assessment remains outstanding.

3. Inadequate Consideration of Resilience and Environmental Risk

The destruction of Porth Wen Solar Farm during Storm Darragh (Dec 2024) demonstrates real-world vulnerability. The Applicant has not explained how similar damage at Fosse Green would avoid heavy-metal contamination of a protected drinking-water area.

4. Maintenance Regime and Component Replacement

The maintenance schedule provides no assurance that large-scale component replacement will not occur under the guise of "maintenance". With only 10% of modules inspected annually, some may go **10 years** without inspection—an unacceptable risk given recent storm failures.

5. Decommissioning Costs and Funding

The Applicant still has not answered the ExA's question on decommissioning costs. The proposed accrual of **3 pence per watt** (£7.2m total) is unjustified, below international norms, and would equate to only ~£2m in real terms after 60 years—"plainly inadequate".

The Applicant previously stated it was "committed to setting aside money", but now shifts responsibility to "the undertaker". Given the intention to sell the project post-consent, this commitment must be secured through the DCO.

6. Permanent Land Take Misrepresented

The Applicant claims ignorance of NSIPs that classify access roads, compounds, substations, and BESS as permanently sealed land. This is contradicted by Mallard Pass, Heckington Fen, Gate Burton, and Beacon Fen—all of which adopt this approach. Mallard Pass was promoted by the same Applicant, making the omission concerning.

7. Unsupported Landscape and Perception Claims

The Applicant asserts that some will view solar farms as "*important, sensitive, rural and even agricultural*", but provides no evidence. The cited Lancaster University study merely states that solar farms are becoming common, not that they are perceived positively. The ExA's request for evidential basis remains unanswered.

8. Mental Health Impacts Minimised

The Applicant suggests permissive paths and a community orchard as mitigation. This fails to recognise the difference between walking through open countryside and walking through "fields of glass" with inverter noise.

9. Overplanting Ratio Unsupported by Applicant's Own Data

The Applicant proposes an initial overplanting ratio of **1.6**, but a ratio of **1.17–1.20** is sufficient to meet Year-30 performance. Mixing STC and NOCT data is methodologically invalid. A justified ratio of 1.2 would require removal of **~139,250 panels**, constituting a **material design change**.

10. Maximum Output Achieved Only 5% of the Year

Table 8.1 shows only **460 hours per year** at full output (5% of the year). The submission questions how such extensive land take can be justified when maximum output is so infrequent.

11. Battery Storage Modelling Unbalanced and Incorrect

All BESS examples provided show summer-like conditions; no seasonal variation is presented. The Applicant's earlier claim that the battery will "only store and discharge energy generated by the Proposed Development" is demonstrably incorrect.

Overall Conclusion

The Applicant has failed to answer key ExA questions, provided inconsistent or unsupported evidence, underestimated environmental and financial risks, and justified design choices using flawed methodology. The overplanting analysis alone indicates that a major redesign is required. A comprehensive and evidence-based response from the Applicant is still outstanding.

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IP NUMBER [redacted]: FOSSE GREEN DEADLINE 4 COMMENTS

Deadline 3 was 20 March 2026 with the submissions posted on the Planning Inspectorate website on 24 March 2026, and Deadline 3A was 24 March 2026 with the submissions posted on 26 March 2026. A plethora of documents were submitted at these deadlines which were impossible to process in such a short timescale prior to Deadline 4 on 31 March 2026. Therefore, whilst I have submitted some comments further to Deadline 3 submissions, in order to adequately comment regarding the totality of Deadline 3 together with Deadline 3A, I will present my submission, along with any further comments regarding submissions at Deadline 4, at Deadline 5.

This submission is in 2 sections; Section A covers the Applicant's responses to the ExA's second written questions and Section B refers to the Revised Solar Technical Guide.

Section A. Responses to Second Written Questions

The following comments refer to the Applicant's responses to ExAQ2 (REP3-045). Wording in italics comes from REP3-045 unless otherwise stated.

GC.2.07

Regarding cumulative effects, the Applicant states "*The Applicant is not required to assess each and every scenario if they result in lesser effects than has been presented in the ES ……..*" The question particularly referenced the possibility of sequential development, one after another, spread across many years.

Sequential development over many years may produce **greater long-term disruption**, and the Applicant has not demonstrated otherwise.

GC.2.08

The Applicant has not stated **when** the Interrelationships Report will be submitted. A clear deadline is required.

CC.2.03

"The applicant does not believe using the anticipated carbon intensity for electricity generation in May 2033 is an appropriate measure to quantify the carbon reduction benefits brough forward at the Proposed Development."

"Firstly, the Applicant would note that any anticipated carbon intensity for electricity generation in 2033 will be dependent on the deployment and operation of schemes such as the Proposed Development. Any anticipated value which assumes that government's capacity ranges are met (noting that the Proposed Development contributes to meeting these ranges) therefore does not constitute a realistic scenario for if the Proposed Development does not go ahead. Conversely, any anticipated value which assumes that the Proposed Development does not go ahead would be expected to have a higher intensity for electricity generation in 2033 that the case that it does go ahead, thereby increasing the benefit arising from the Proposed Development."

The Applicant has not addressed the question. The ExA is referring specifically to May 2033, not 2033 in total. As this is the proposed commencement date of operation, the proposed development **will not yet have contributed any output to the grid and therefore not provided any benefit.** There is therefore no reason why the Applicant cannot 'undertake an assessment for GHG emissions offsetting based on the anticipated carbon intensity for electricity generation in May 2033', as requested by the ExA.

CC.2.05

Regarding resilience, the recent destruction of Porth Wen Solar Farm during Storm Darragh (Dec 2024) demonstrates real-world vulnerability. The Applicant has not

explained how similar damage at Fosse Green would avoid **heavy-metal contamination** of the protected drinking water area.

DCO.2.01

The Applicant's maintenance schedule (Annex C) provides **no assurance** that large-scale component replacement will not occur under the guise of "maintenance". A **maximum limit on unplanned component replacement** should be secured in the DCO.

It is also noted that with solar PV modules being inspected at a rate of 10% per annum, it will be 10 years before some modules are inspected for stability, rigidity and fixings. This provides little confidence in there being no similar outcome to the destruction caused by Storm Darragh.

DCO.2.28

The Applicant has not answered the ExA's question "What would the costs of decommissioning be …." Regarding funding for decommissioning, the Applicant states *"the amount included for decommissioning at this stage is 3 pence per watt. The undertaker would accrue this sum over the lifetime of the Proposed Development ….."*

The Applicant has stated that it is committed to setting aside money for decommissioning the Proposed Development (Chapter 12, page 12-17 (APP-037)). In response to DCO 2.28 the Applicant has now reframed this as a responsibility of the "the undertaker". Given the applicant's intention to sell the project as soon as possible after any granting of DCO consent, the only possible way this commitment can be honoured is for it to be secured through the DCO. Could the Applicant please be clear how it, the **Applicant**, intends to honour the commitment. Also, the Applicant uses the phrase 'at this stage'; so, this looks ready for another U turn.

In order to answer the ExA's question; at 3 pence per watt, with a grid connection of 240MW, the calculation is: £0.03 x 1,000,000 x 240 = £7,200,000. This figure of **£7.2M** (3 pence per watt) is unjustified and appears to be below international benchmarks. After 60 years, this would equate to approximately **£2M in real terms**, which is plainly inadequate.

Why is the estimated cost of decommissioning not included in an uplifted Funding Statement?

FS.2.02

"*The Applicant is not aware of other solar NSIPs including areas of built 'hard' infrastructure (access roads, compounds, BESS, substations) within the calculation of land permanently lost, except where an applicant is not proposing to decommission these works."*

As examples of other solar NSIPs where hard infrastructure was treated as sealed over even though the applicants were proposing to decommission these works were provided in REP1-106, it is surprising that the Applicant claims to be unaware of these especially as Mallard Pass DCO was promoted by the Applicant.

LV.2.03

The ExA questioned the statement "…. *Some will perceive them as unwanted industrial and urbanising; others will see them as important, sensitive, rural and even agricultural ……..."* The Applicant responds by, firstly, referring to the Statement of Competence. How can someone's perception be linked to competence? The Applicant then refers to a Lancaster University 2025 study, "*solar farms are expected to become increasingly common features of agricultural landscapes in coming decades as part of the low-carbon energy transition."* This is merely a statement of the obvious; particularly regarding the Government's acceptance to allow good quality productive farmland to be replaced with solar arrays. What this quote from Lancaster University does not do is support the words from the applicant "…*others will see them as important, sensitive, rural and even agricultural ……..."* So, in response to the ExA, the Applicant has NOT identified any evidential basis underpinning the quotation.

PE.2.02

Regarding mental health, the Applicant refers to new permissive paths. Does the Applicant not understand the difference between the way that the existing paths are experienced through an open landscape listening to the sounds of nature against walking through fields of glass listening to permanent humming sounds from the substations, BESS, inverters etc? Furthermore, the Applicant states *"The purpose of the community orchard is for use by residents and the community to enable open access to the area, enjoyment of the space and to allow residents and the community to pick fruit from the trees grown within this orchard."* Does the Applicant really believe an orchard will compensate individuals for the stress (which has already been going on for some 2 years), anguish, noise, and visual impact which will seriously impact peoples' wellbeing? Sadly, even after the time it will take for trees to bear fruit, an 'apple a day' WILL NOT KEEP THE DOCTOR AWAY!

Section B. Revised Solar Technical Guide

The following section refers to REP3-037 Solar Technical Guide (Revision 2). Paragraph references and quotes in italics refer to this document unless otherwise stated.

B.1 Solar PV Overplanting

B.1.1 Paragraphs 5.3.1 – 5.3.4 explains why Nominal Operating Cell Temperature (NOCT) conditions are preferred above Standard test Conditions (STC). Referring to Table 5.2:

STC:

Year 1:	373.55 MWp (DC)	1.56 Effective Overplanting
Year 30:	327.75 MWp (DC)	1.37 Effective Overplanting

Why has the applicant not tabulated STC to arrive at Year 30 with approximately 240MWp effective DC capacity? If an initial effective overplanting ratio of 1.2 were used the figures would be approximately:

STC:

Year 1:	287.35 MWp (DC)	1.2 Effective Overplanting
Year 30:	241.55 MWp (DC)	1.01 Effective Overplanting
NOCT:		
Year 1:	279.89 MWp (DC)	1.17 Effective Overplanting
Year 30:	245.57 MWp (DC)	1.02 Effective Overplanting

Therefore, notwithstanding what the Applicant states in Paragraph 5.3.6, according to the data provided by the Applicant in Table 5.2, if effective overplanting commenced at 1.2 for either STC or NOCT, the effective DC capacity and effective overplanting in year 30 would be broadly similar. Hence, in the absence of a clear explanation of **why starting at an overplanting ratio of 1.17 can actually justify starting at 1.6,** the Applicant has, by default, argued that an overplanting ratio of 1.2 is sufficient. Hence, **a reduction of 139,250 panels (fixed south facing option) needs to be undertaken.** This requires a **redesign** and should be treated as a **material change**.

B.1.2 In short, the Applicant's justification for a **1.6 overplanting ratio** is inconsistent and contradicted by its own data. Moreover, mixing STC and NOCT is methodologically invalid and is not standard industry practice. An overplanting ratio of **1.17–1.20** is sufficient to meet the Year-30 target, resulting in a significant reduction in panel numbers.

B.1.3 Furthermore, Paragraph 5.3.7 states *"One aim of the level of initial overplanting is to ensure that the scheme is capable of producing its rated grid connection output of 240MW at peak levels of irradiance throughout the 30-year expected lifespan of the modules."* Table 8.1 states only 460 hours per year at full capacity (239.5MW). Therefore, according to Table 8.1, the proposed development will only achieve maximum output for 5% of the year. How can any level of overplanting justify the use of such a large area of land in order to ensure a maximum output for only 5% of the time?

Regarding Action Point 2 (REP3-042 Written Summaries of Oral Submissions ISH3), whilst the updated Solar Technical Guide (REP3-037) gives an explanation of the difference between Standard Test Conditions and Nominal Operating Cell Temperature, it does not give any justification for an overplanting ratio of 1.6. Indeed, as explained above, it clearly shows nothing greater than an overplanting ratio of 1.2 is required.

B.2 Battery Storage Management

B.2.1 REP3-037 Section 12 is in response to the ExA requesting an explanation of how the battery storage element is managed, including the most efficient way to utilise battery storage, noting seasonal variation, weather variation, and how that relates to when there may or may not be much solar in the electricity system.

B.2.2 Plates 12-1, 12-2 & 12-3 all show a yellow area depicting solar being exported. If solar is being exported to the grid it can only come from the solar arrays associated with the Proposed Development. Plates 12-1 and 12-2 appear to be at the height of summer during the 5% of the year when maximum output is predicted. Plate 12-3 which shows 'solar export' peaking at above 200MWp is clearly not in winter. A more balanced view is required; eg at, say, monthly periods across the year.

B.2.3 The Applicant's statement at APP-031 paragraph 6.4.76 that "*As the lifetime generation figure of the BESS is significantly less than that of the Proposed Development, it is reasonable to assume that the battery will only store and discharge energy generated by the Proposed Development.*" is clearly incorrect as the intention is clearly to both export and import.