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IP No. 20054420

Climate:

Philip Heard, resident of Navenby. I have set out my qualifications but I am an ex RAF Engineering Officer and Chartered Engineer.

The Applicant claims 9.6 million tCO_2e savings across the life of the proposed development. Notwithstanding the Secretary of State has stated a Combined Cycle Gas Turbine an **inappropriate** baseline for comparisons, this Applicant continues to pursue this line.

The Applicant states: "….*the benefit of the Proposed Development with regards to climate is to replace the electricity generation from fossil fuels."* The Government's Net Zero targets are 50% fossil fuel energy by 2030 and a total fossil fuel free grid by 2050. The whole net zero plan will not fail if this proposal is refused; indeed, if the proposed development did not go ahead, an alternative source of renewable energy would take its place NOT fossil fuel generated energy. The Applicant has compared Springwell emissions to fossil fuel emissions across 40 years but the Government target only allows 50% fossil fuel for the first 20 years, ie 25% of the total 40 years. Therefore only 25% of the Applicant's fossil fuel emission figures should be applied. This immediately reduces the Applicant's savings claim down to 2.4 million tCO_2e.

Appendix 2 to Response to Deadline 1 Submissions, is a Climate Technical Note in which the Applicant lists the estimated lifetime GHG intensities for Springwell Solar Farm, a Combined Cycle Gas Turbine, Solar (roof & utility), nuclear, hydropower, onshore wind & offshore wind so has made a comparison. The Applicant's own figures (in para 1.4.2 Table 2) show Springwell to have the second worst lifetime emissions produced after a Combined Cycle Gas Turbine. The figures stated for a lifetime GHG intensity comparison are **84.1 (these figures are all gCO_2e/kWh)** for Springwell Solar Farm against **490 gCO_2e/kWh** for a Combined Cycle Gas Turbine but this needs to be divided by 4 to reflect the 25% use of fossil fuel across the 40 years ie **122.5 gCO_2e/kWh** a saving intensity of **38.4 gCO_2e/kWh** (in reality this figure will be significantly less as fossil fuel generation will ramp down across the first 20 years). For the 75%, where the comparison is not with fossil fuels, the comparison can only be with other 'green' energy. Solar is the most polluting of the renewables according to the American National Renewable Laboratory. A Small Modular (nuclear) Reactor, for example, has zero operational emissions, and reported lifetime emissions intensity of **12 gCO_2e/kWh** (compared to 84.1 for Springwell).

The other issue regarding the proposed development is component replacement. The Applicant assumes the solar PV panels will all last the life of the development (40 years) other than a 5% attrition rate for damage etc. However most manufacturers suggest a life of 25 to 30 years. Therefore, most likely a replacement of every solar PV panel at least once will be required adding a further one million tCO_2e to the GHG emissions. Moreover, the Applicant has assumed the life of BESS batteries at 17.5 years and transformers at 40 years. The 2 BESS currently in the planning stage with NKDC, state a battery life of 5-15 years with planned replacements at 10 years and planned transformer replacements at 25 years. Overall, the Applicant appears to have grossly underestimated the carbon emissions attributed to component replacement.

With all this taken into account the result for the proposed development is a negligible saving in GHG emissions at best yet still more polluting than alternatives such as nuclear or wind. Indeed, it is worth noting that in the recent House of Commons debate (Hansard: Volume 768 debated 5

June 25) Nick Timoney MP, stated that solar is 4 times more carbon intensive than wind and nuclear. He mentioned the Sunnica Solar Farm development in Suffolk, 2500 acres and 3 battery sites, that will actually increase carbon emissions.

To sumarise, the Applicant has underestimated the level of component replacement required and has hugely inflated its project lifetime GHG emissions savings by using a totally inappropriate gas cycle comparison. This project does not accord with the Government's often quoted mantra 'green, home grown energy'. The proposed development is not green with manufacturing using coal powered energy in China, and clearly not home grown with over 90% of the components coming from abroad.

Finally, a comparison of my own. Two Small Modular Reactor would generate some 940 MW, would produce a fraction of the GHG emissions of the proposed development, could be constructed in less than 5 years and the 2 sites would sit on a total footprint of about 4 hectares; more power generated than the proposed development which is industrialising over 1200 ha of productive arable land.

PHILIP HEARD: INTERESTED PARTY REFERENCE No. 20054420

COMMENTS IN RESPONSE TO QUESTIONS RAISED IN ISH3

In the transcript of Issue Specific Hearing 3 Part 3 (16 July 2025), 01:02:59:22 – 01:04:35:05, I raised the issue that there is sufficient land within the order limits to meet the requirements set out by the Applicant in ES Volume 1, Chapter 4 Para 4.2.11,for a viable development without using BMV agricultural land; the paragraph states: *"In determining a suitable location for the Proposed Development, the Applicant sought to develop a single new Nationally Significant Infrastructure Project (NSIP) scale solar project generating a minimum of 250 – 500 Megawatt (MW) (based on a site comprising minimum 1,000 acres) …. "*

The Applicant's response at 01:06:31:14 – 01:09:44:08 is that "*BMV is not a predominant factor. There are other factors so it will always be a balancing of various environmental factors."* This does not answer the question. Indeed, 'other environmental factors' are not important enough to merit mention in ES Volume 1, Chapter 4. The Applicant has given no justification for using the 42% of BMV land within the order limits. What are the other environmental factors that justify losing 1328 acres of BMV land? Non BMV land in the order limits totals 1834 acres; this surpasses the Applicant's minimum acreage for a viable development by over 800 acres, this surely gives sufficient flexibility to meet the Applicant's 'various environmental factors'. The Applicant needs to clearly explain what parts of the Proposed Development can only be sited on BMV land and why.

Following the amendment in Dec 24, the NPPF Footnote 65 still states: "Where significant development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of higher quality"; the Applicant has failed to comply with this requirement. The Applicant has a number of solar farms in both the UK and France, most under 50MW, typically 100 acres, therefore the Applicant is clearly capable of managing a solar farm business on 1834 acres or less and thereby not being in direct contravention of the NPPF. By stating that "*BMV is not a predominant factor"*, the Applicant is showing how little importance it considers BMV to be. Other than commercial profit, what is a predominant factor?