Text of Oral Submission to NSIP 14/5/25 Professor David Sherratt *(note the text in red was not in my oral presentation)*

Good morning! I am David Sherratt a resident of Church Hanborough for the past 32 years. I am a biomedical scientist who uses quantitative experimental methods to understand complex biological processes. I am a fellow of the Royal Society and past-President of the UK Genetics Society. This oral submission is from me as a private individual. I should add that my home ([redacted]) is immediately adjacent to the proposed Solar Farm and will be surrounded on 3 sides if the proposal goes ahead.

My focus today is food security and food production by the land proposed for the Botley West Solar Farm. In 2024, PVDP produced an analysis of agricultural land quality in the proposed solar farm area. The PVDP analysis estimated that ~38% of the land fell into the category 'Best and Most Versatile' (BMV).

My own careful calculations for different areas of the whole site indicate that for the subsequently reduced area of land proposed for solar panels, this figure for BMV is closer to 45%. Furthermore, in the central region area, the land west of the Evenlode river, adjacent to Hanborough, comprises ~80% BMV by my quantitative calculations (see Appendix below for details of the calculations). Government guidelines and WODC policy state 'any proposal for a solar farm involving the best and most versatile agricultural land would need to be justified by the most compelling evidence'. This compelling evidence remains lacking. T**he 80% BMV land west of the Evenlode (~15% of all panels) should be removed from any solar farm development.**

Parenthetically, my response on 27/07/24 to the PVDP consultation document, in which I asked for clarification of inconsistencies, errors and misleading statements in their analysis of agricultural land quality has been ignored (see Appendix below). I have had no response from PVDP and my concerns remain unanswered.

The land proposed for solar panels is fertile, being almost entirely BMV (class 1, 2 and 3a) and class 3b. This is consistent with conversations I have had with local farmers over the years, who have told me that this land as extremely productive. When appropriately managed with incorporation of extensive organic material, it is highly fertile and productive despite recent climatic challenges (it can produce ~8 tonnes of wheat/hectare/annum). The statements yesterday by Dominic Hare that the land is of poor grade and is no longer suitable for high grade agriculture is not supported by the science-the gravels, bedrock and gravels that underlay the topsoil have remained unchanged over centuries. Reductions in crop yields are partly the consequence of poor topsoil management and inappropriate agricultural methods. Similarly, the comment by the applicant's legal adviser that the UK has an excess of agricultural land, seems unlikely and needs to be supported by objective data if the inspectors are to take this comment seriously.

The combination of climate change and political uncertainty means we need to grow more crops in the UK. Sadly, the total amount of high-quality land under crop cultivation is decreasing each year according to government figures. This decline needs to be halted, as does the degradation of land quality through poor management.

The combination of threatened agricultural land of high quality discussed here; along with hydrological issues relating to the numerous water courses that flow through the proposed solar farm leading to potential massive flooding downstream towards Oxford; issues of heritage, visual impact, amenity and decommisioning (raised elsewhere here), all conspire to indicate that this development should not be allowed to go forward as proposed. We need strategic developments for solar power rather than the opportunistic proposal before us, which would remove extensive excellent agricultural land from the national pool.

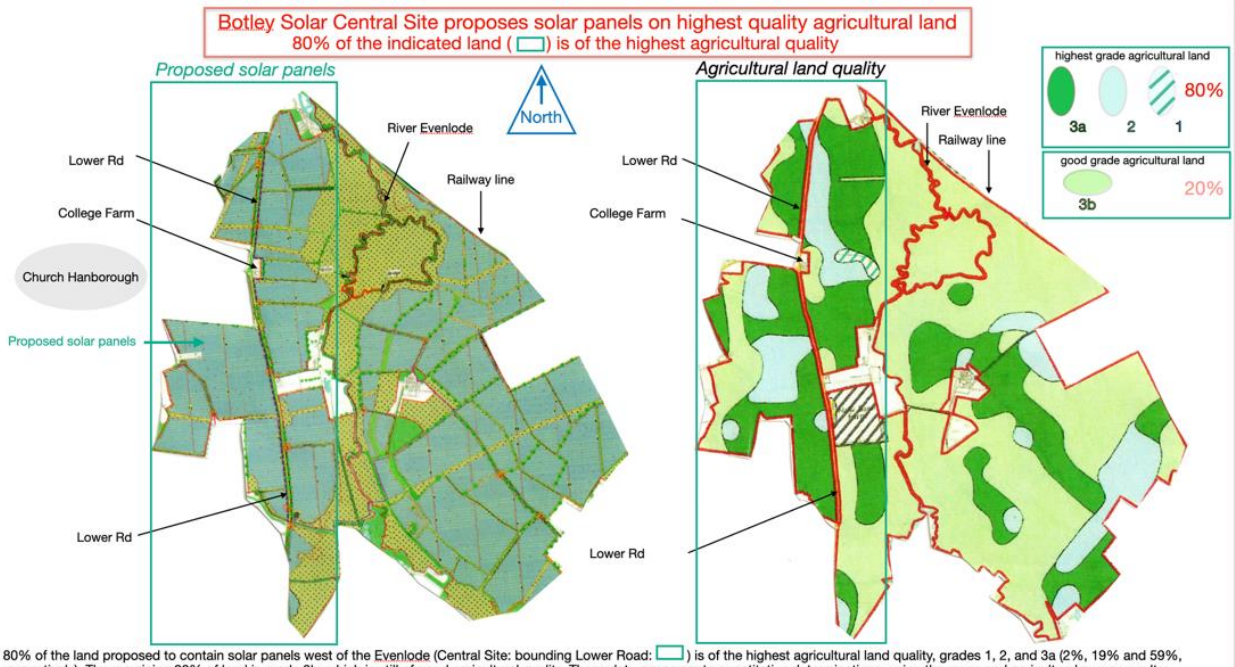
Thank you.

Professor David Sherratt

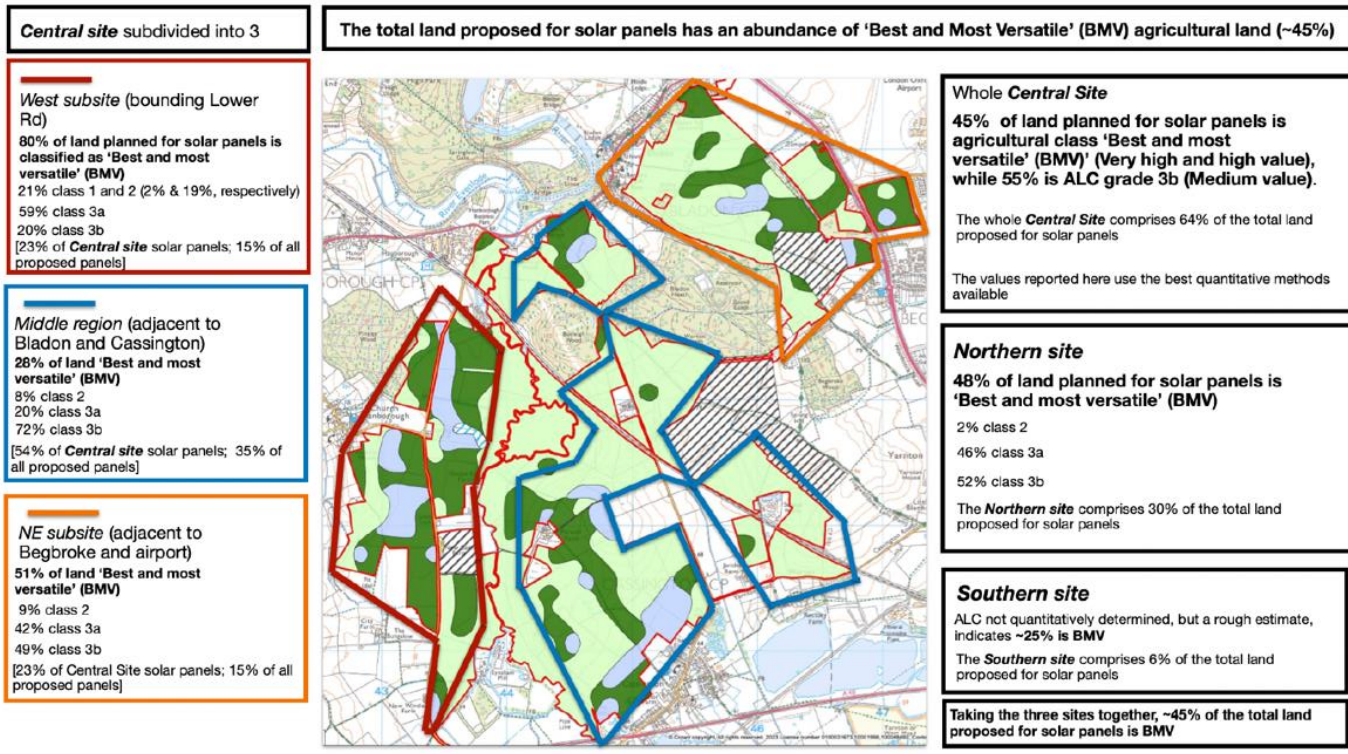
APPENDIX (in responses to the senior Examiner's question)

My methodology of independent ALC classification in relation to the area occupied by solar panels.

1. Semi-transparent digital images of the ALC classification maps and areas to be occupied by solar panels (maps provided in the applicant's submission documents) were superimposed at the correct scale, allowing determination of the fraction of land in each solar panel occupied area to be divided into the various ALC categories (see 2. below and accompanying Figures).
2. The superimposed projections of the above images were printed on high quality heavy duty photographic paper. Then using fine scissors and a high-quality analytical balance (0.1 mg sensitivity), the areas of a given ALC classification were cut out and weighed, allowing the determination of values in the Figure below. As a control, random fixed areas of the photographic paper were weighed in order to demonstrate that the paper had a uniform weight per fixed area. This analogue methodology was the general proved method in use for such determinations, prior to the introduction of digital methods (which I did not have access to for these maps).



80% of the land proposed to contain solar panels west of the Evenlode (Central Site: bounding Lower Road:) is of the highest agricultural land quality, grades 1, 2, and 3a (2%, 19% and 59%, respectively). The remaining 20% of land is grade 3b, which is still of good agricultural quality. These data are accurate quantitative determinations, using the maps and agricultural survey results supplied by PVDP. For the area south of Goose Eye Farm, which was not surveyed, it is assumed the bounding land grades continue through the unsurveyed area. Alternatively, removing that land from the calculation, does not reduce the area of highest quality land.



My analyses yield a higher value of Best and Most Versatile (BMV) (~45%) for the whole site than the figure (~38%) provided by the applicant. This may be because the PVDP analysis used their original solar panel plan rather than the revised plan, which now excludes panels from a significant amount of ALC 3b land. It would be helpful if the applicant provided details of the methods for their calculations, thereby allowing an independent assessment of their accuracy. I also note that in their Fig. 17.2 (Predictive Best and Most Versatile Land Assessment) is erroneous and misleading-most of the planned development should be on land that is coloured mauve (20-60% BMV). The data in table 17.15 (Table 17.9 in the original documents) that 59% of the land proposed for solar panels is less than 20% BMV neither accords with their own data nor with my calculations. Similarly, 'the high likelihood of BMV land equals 1%' is inconsistent with the information shown for the west sub-site of the Central region, where ~80% of the land is BMV and constitutes ~15% of the total development; i.e. ~10% should replace 1% in Table 17.15 (originally Table 17.9).

The above is a slightly revised version of my submission on 27/07/24 Professor David Sherratt 20/05/25