Deadline 4 Submission from Dr Anne Noble

Dear Sirs

As a Member of the British Society of Soil Science and a FACTS registered agronomist in the area proposed for the solar farm it is disappointing to hear the arguments put forward by Sunnica to justify their assessment of the land as not BMV.

During the hearing Mr Baird criticised the Stephenson report commissioned by SNTS for not assessing the stoniness of the soil correctly. At 1.00.50 on the second recording Mr Baird very clearly states that the stoniness should be recorded by assessing stones of **>2mm and the pictures showed the sieves were too coarse to account for stones of this size.** This is totally incorrect, stoniness is assessed on stones of **2cm** and above, many soil particles will be in the region of 2mm and a completely erroneous impression was given about the report which has since been amended to include the analyses mentioned by Mr Baird.

There is also inconsistency with the area surveyed by MAFF which shows 57% of the land in that area is BMV as compared with 3.8% over the whole site

In the light of a number of inconsistencies as outlined below, if the Examiners feel that this point is relevant to the enquiry, and taking account of Mr Keans comments, we respectfully suggest that Sunnica give us some dates when we can visit each of the sites. Along with soil specialists and Mr Baird, further borings and pits can be dug at random points within each area in order to clarify the situation.

1 Land classification

1.1 Although correct in their assertion that current land use is not a factor in determining ALC, the 1988 MAFF guidelines do describe the crops which can be successfully grown on each grade of land. Thus Grade 3b land is described as:

Land capable of producing moderate yields of a narrow range of crops, principally cereals and grass or lower yields of a wider range of crops or high yields of grass which can be grazed or harvested over most of the year.

And grade 4 land:

Land with severe limitations which significantly restrict the range of crops and/or level of yields. It is mainly suited to grass with occasional arable crops (e.g. cereals and forage crops) the yields of which are variable. In moist climates, yields of grass may be moderate to high but there may be difficulties in utilisation. The grade also includes very droughty arable land.

1.2 The land concerned grows high yields of a wide variety of crops, including carrots, potatoes and parsnips which all require a depth of soil to grow properly and are not grown in poor, shallow soils.

1.3 Sugar beet yields are generally higher than average and grown without benefit of irrigation even in years such as 2022. Cereals generally yield above the national average as described by AHDB.

1.4 This range of crops and the yields achieved are at odds with the description of the soil as poor.

2 Previous surveys

2.1 The applicant states that the results of 3 separate survey providers are consistent.

2.2 There are actually 4 separate surveys including Mr Baird's quoted

2.3 The surveys done by RAC on Bay Farm found the land was Grade 4

2.4 The MAFF survey at Kennett in Nov 1992 found 170 ha out of 181.4ha to be grades 2 or 3a. Not all this land is in the scheme but Mr Baird has downgraded it due to irrigation to 3a giving 28.5 ha as 3a in the scheme- this still shows that 57% of the land is BMV **so not consistent** with the Sunnica assessment of only 3.8% of the total being BMV

2.5 The grading found by the MAFF survey is confirmed by an earlier MAFF survey in Feb 1992 for Borrow pits at Kennett which found all the southern site (also covered by the later MAFF survey) to be grade 2, with irrigation, but a further site (north) just outside the scheme red line was graded as 3a without irrigation.

2.6 The results of these independent surveys cannot be described as being consistent with the results of Mr Bairds survey.

3 BSSS Working with Soil Guidance Note on Assessing Agricultural Land Classification surveys in England and Wales Version 3 Jan 2022

3.1 This note states that assessing land for ALC purposes is not a straightforward process. The note has been written to help development planning professionals to evaluate any ALC reports submitted in support of planning applications.

3.2 The Guidance Note has two validation stages which can be used to assess a report:

3.2.1 In the first stage one of the criterion which gives concern is that the ALC grading contradicts a detailed post 88 ALC survey on Magic maps. The MAFF surveys cited are on MAGIC maps. Mr Baird uses the fact irrigation has been used to upgrade the areas as the reason for the discrepancy but no figures have been shown to justify the downgrading of the entire site

3.2.2 A further cause for concern is if the ALC grading is at odds with background checks Although not designed for planning purposes the Provisional ALC map also on MAGIC suggests most of the land near Isleham, graded as 3b and 4 by Mr Baird, would be grades 2 and 3a

3.3 Second stage validation is a list of questions with 3 possible outcomes: Pass, Concern and Fail. A Fail indicates the report should not be accepted without referral to experts.

3.3.1 *Question :Have topsoils and subsoils been surveyed? Reference to soil pits, auger samples and lab samples should be included.* In around 40% of auger borings the depth has only been checked to 40cm. Only 6 pits were dug and these were not concurrent with the auger borings – between 2 and 6 years later. The only analysis on the pits was of the top soil. No map was

provided as Sunnica say the GPS locations are clearer than can be recorded on a map which must then throw doubt on the locations of the auger borings as mapped.

3.3.2 Although maps of auger borings are provided along with the details of the borings on each area many points have not been recorded at all, eg Manor Farm is missing 15, 16, 19, 20, 31, 65, 67, 73-77, 83-88, 90-96 out of 97 points – close to 25% of the points not recorded. Lee Farm is missing 21 points out of 225 a further 9%. There are points missing in each area.

3.3.3 The GPS locations of 4 of the pits do not coincide with GPS locations of auger borings. This lack of a map of the pits and the analysis of the subsoils is a **Fail** in the guidance

3.3.4 The number of days recorded at each site is not consistent. Lee Farm with 225 ha took 6 days, Chippenham Park, a similar area, only 4 days.

3.3.5 As both Elms Rd and Manor Farm are recoded as 17,18 and 21 Oct can Sunnica or Mr Baird tell us who was doing the work on each area, as different people may record in slightly different ways.

4 Irrigation

4.1 Natural England state that the current ALC guidelines are still those from 1988. While emails suggest irrigation should not be used to upgrade land, TIN 049 states that irrigation equipment should be taken into account and the emails from NE which Mr Baird cites also say irrigation is a factor itself which should be taken into account. There is no evidence in the Soils baseline report that Mr Baird has taken this into account, despite the presence of winter fill reservoirs which are supported by both the EA and government grants.

4.2 Sugar beet is not irrigated and the area yields higher than average, this would not be possible were droughtiness such a limiting factor.

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