

January 26, 2021

To whom it may concern,

In December 2020 Land Research Associates Limited (LRA) were instructed by Pegasus Planning (acting on behalf of their client Solar Century) to undertake an Agricultural Land Classification survey of land north of St Asaph's Denbighshire known as *Elwy Solar Farm*. LRA were advised that the site had previously been surveyed by Soil Environment Services (SES) on two earlier occasions in 2020, the second being in response to queries raised on their first report by ADAS acting on behalf of the Welsh Government. Following further ADAS queries on the second SES report, LRA were instructed to independently verify the previous land grading.

LRA conducted a survey of the site between January 5th and January 8th 2021. Our survey was purposely conducted without reference to either the SES survey, or the ADAS comments upon it, and our findings are therefore in no way influenced by either.

An Agricultural Land Classification report was produced for the site on January 26th 2021 (LRA report reference 1768/1). LRA site reports are purely factual documents based on objective grading in line with the ALC Guidelines for England and Wales, and therefore we have a policy not to include any content regarding planning or other matters. I have produced this accompanying letter, as some comment and clarification on our findings in relation to previous submissions for this site may prove helpful.

Noting second SES report was produced in response to queries from ADAS regarding the original SES report (July 2020), I will limit my reference to the second SES report findings (October 2020).

### **Soil types**

We find the same broad soil pattern as that reported by SES: reddish heavy soils (over glacial till) on the higher ground in the west, and alluvial soils on the lower-lying floodplain to the east. As reported by SES, the alluvial soils are heavier and wetter in the north than the south, and an area in the south-east has gravelly subsoil.

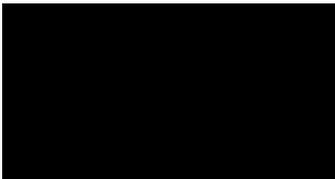
## Land grading

Overall we have allocated approximately 76% of the agricultural land at the site to the same grade as SES<sup>1</sup>. Of the land graded differently, the vast majority (19%) is land in the central part of the floodplain, graded as subgrade 3b in the SES survey and subgrade 3a in our survey.

## Reasons for differences

1. SES report the majority of the topsoils in the south of the floodplain area of the site to be heavy silty clay loams (27% clay or greater), whereas we found these to be medium silty clay loams (less than 27% clay). This difference effectively increases land quality in these areas by one grade in our survey<sup>2</sup> Laboratory analysis (submitted with our report) confirms our field estimates of clay content to be accurate, albeit they were found to be only marginally below this threshold (25-26% clay).
2. SES have partially relied on published data to assess the degree of wetness limitation of the soils (referring to both the Welsh Government predictive ALC map and the National Soil Map). We have not used either to determine our grading.
3. SES appear to have adopted a generalised approach to grade mapping (as previously employed by the Soil Survey of England and Wales), whereby soils of the same 'type' are assigned to a single ALC grade based on their average degree of limitation, rather than grading land according to variation in soil properties observed at individual sample points (as previously employed by ALC surveyors from the MAFF Resource Planning Team for example). Both approaches have their strengths and weakness, but are likely to result in slightly different results when mapping land with variable soils, most notably in the grade assigned to land on the boundary between soil types.

In conclusion, we broadly agree with the accuracy of the (October 2020) SES survey results. As we have outlined above, some differences in approach would appear to account for the parts of the site we have graded differently to SES.



Mike Palmer (Director)

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<sup>1</sup> Our estimate of the total area and non-agricultural area of the site are greater, which suggests SES have excluded some of these non-agricultural areas from the survey area.

<sup>2</sup> Mainly from subgrade 3b to subgrade 3a in the central floodplain area, but also from grade 2 to grade 1 and from subgrade 3a to grade 2 over small areas in the south.