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Mr Kelvin Hall
Planning Development Management
Shire Hall, Abbey Foregate
Shrewsbury, SY2 6ND

14 November 2014

Dear Mr Hall

14/03946/FUL – Proposed 78 acre, 60,000 module Ebnal Lodge solar farm at Rhosygadfa, Gobowen

1. CPRE recognises that solar energy has an important role to play in meeting future energy needs. But the highest priority should be a reduction of energy demand to further reduce emissions and reduce the need for new infrastructure.

2. CPRE believes that the most suitable and, as yet, largely untapped location for solar technologies is on industrial and other buildings with major roof surfaces. Part 2 of the Government's UK Solar PV Strategy quantified part of this potential and estimated that there are currently 250,000 hectares of south-facing commercial roofs in the UK.

3. Ground-mounted solar farms can bring benefits, but CPRE wishes to ensure that they are located:

   i) where they do not harm the natural beauty of the countryside,

   ii) where they do not harm the productivity of the countryside, and

   iii) in ways that provide local benefits.

4. We believe that the current application satisfies none of these criteria, for the following reasons.

Landscape and visual effects

5. The application is for a single contiguous block of 60,000 raked photovoltaic modules, each measuring approximately 1.6m x 1m x 0.05m[1] (or 1.65m x .09m [sic] x .04m)[2], mounted onto tables of 2 x 24 or 2 x 12[2] modules each, with a height of up to 3m[3], and occupying 78 acres (32 hectares) of land in the open countryside.

6. The site is presently intensively farmed and slopes down to the west, giving open views to the west including views from the hills to the west[4].

[1] Environmental Supporting Statement page7 paragraph 1.5.1
[2] Landscape and Visual Assessment, page iii 2nd paragraph of Executive Summary and page 1 paragraph 1.2.1
[3] Landscape and Visual Assessment, Executive Summary page iii 7th paragraph
[4] Landscape and Visual Assessment, Executive Summary page iii 5th paragraph

7. The Landscape and Visual Assessment, prepared by a firm from Newport, South Wales, is deficient in that:

   i) It appears to have assessed the impact of a solar farm that is only one-tenth of the true size of the actual proposal, because it twice states that the solar PV modules are only 90mm wide [2], rather than their actual width of approximately 900-1,000mm. If that is the case, it will have severely under-estimated the adverse landscape and visual impacts of the proposal.

   ii) Disappointingly, it offers no photomontages containing visual representations of actual solar PV panels, from any of the 10 nearby viewpoints or elsewhere, indicating what the solar farm will look like in reality. We consider that an assessment of the visual impact of the proposal cannot adequately have been made without having some sort of visualisation &/or photomontage of the solar farm's visual appearance in the landscape.

   iii) The series of photographs from the ten viewpoints all show summer vegetation (in May 2014)[5]. The site will have greater visual impact in the winter, when leaves are absent from deciduous vegetation.

   iv) The ZTV it offers extends only 2km from the site[6]. There is therefore no indication of the extent of visibility of the site from nearby locations on higher ground, but further than 2km from the site, from which it is acknowledged that the site can be seen. The choice of 2km as the cut-off for the ZTV appears to have been made solely with residential receptors in mind.[7] It appears therefore that the ZTV does not primarily take account of the extent of the visibility of the site by people in the countryside generally, other than those living within 2km of the site.

   v) The stated methodology of producing the ZTV indicates that the desktop method assessed the visibility only of *'structures of the appropriate height at the centre location of the proposed solar PV development'*[8]. Because the ZTV assessment considered only the visibility of the centre of the site, and because that assessment made use of selected 'stamped' buildings and trees[6] which would screen that central spot, the actual visibility of the whole 78 acre site is likely to be considerably greater than indicated by the submitted ZTV.

   vi) The report specifically states that it *'does not establish the significance of effects'* for fear of triggering the requirement for a formal EIA.[9] Instead it uses only the term *'notable'* without attributing any scale of magnitude to any such 'notable' visual impact. However, in the text, it does state that the magnitude of visual change at five of the ten viewpoints would be high.[10]

8. For all the above reasons we believe that the applicant's Landscape and Visual Assessment should be given limited weight.

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[5] Landscape and Visual Assessment page 4 paragraph 2.1.7

[6] This is evident from Landscape and Visual Assessment Figure 2 (the ZTV diagram) although it is not stated overtly in the ZTV text at page 5 section 2.3 or at page 18 section 4.1

[7] Landscape and Visual Assessment page 28 section 4.6 final sentence

[8] Landscape and Visual Assessment page 5 section 2.3, 5th paragraph

[9] Landscape and Visual Assessment page 3 paragraph 2.1.3

[10] Landscape and Visual Assessment pages 20 to 24, section 4.3

9. In fact, the visual impact of such a large solar farm is likely to be severe.

   i) It will be very visible from nearby as a prominent industrial structure.

   ii) It will be very visible from the popular local elevated viewpoints such as Old Oswestry Hillfort, The Racecourse, Llanymynech Hill and Rodney's Pillar. For this reason it is likely to be perceived from those viewpoints as an intrusive change to the landscape, contrary to JBA Consulting's conclusion that *'in the wider character area the changes will be less intrusive'*.[11]

   iii) There will be an adverse visual impact on users of the Public Rights of Way through the site.

   iv) The 3.89km[12] of 2.45m high security fencing[13] surrounding the site, the 27 x 3m high CCTV poles, the substation and the 10no inverter stations will all add to the adverse visual impact of this proposal, which is for inappropriate industrialisation of the countryside.

Agricultural productivity

10. The applicant's Agricultural Land Classification Report, prepared by a firm from Wiltshire, contains at least one classification which conflicts with evidence on the ground. It has classified field 7 as being Grade 5[14], which it states to be *'very poor quality agricultural land: land with very severe limitations which restrict use to permanent pasture or rough grazing, except for occasional pioneer forage crops'*. However, on recent inspection the field appeared to be in stubble, indicating that a corn crop had been grown on it for the last harvest.

11. Even acknowledging that none of the land has been graded above grade 3b, the land is clearly productive, being partly grown to corn and partly to grass. The Landscape and Visual Assessment regards the land as being within an intensively farmed area (see paragraph 6 above and footnote 4). Immediately adjacent fields have had a recent crop of maize, which requires good land.

12. The applicant proposes that the land be grazed by sheep.[15] However, this is likely to be at a stocking rate of less than 3 per acre[16] compared to more usual rates of over 5 per acre.

13. There will therefore be a considerable loss of agricultural productivity over the 78 acre site as a whole.

Local employment

14. The applicant states that *'local contractors will be used where possible in the installation'*.[17] There is therefore no guarantee that local labour will be used and the implication is that this would in any case only be during the relatively short

[11] Landscape and Visual Assessment page 26, 5th paragraph
[12] Landscape and Visual Assessment page 1 paragraph 1.2.1, last bullet point
[13] Environmental Supporting Statement page 8 paragraph 1.5.5
[14] Agricultural Land Classification Report page 5
[15] Environmental Supporting Statement page 14 final paragraph
[16] See Agricultural Good Practice Guidance for Solar Farms page 2 (available at http://www.bre.co.uk/filelibrary/nsc/Documents%20Library/NSC%20Publications/NSC_-Guid_Agricultural-good-practice-for-SFs_0914.pdf)
[17] Environmental Supporting Statement page 6 paragraph 1.3.1

construction phase.

Planning balance and conclusion

15. Paragraph 4.5.3 of the Overarching National Policy Statement for Energy (EN-1) requires applicants to design their development to take account of *'aesthetics (including its contribution to the quality of the area in which it would be located) as far as possible'*. We believe that a solar farm as large as the one proposed would be aesthetically out of place in the open countryside.

16. The applicant states that the electricity that the proposed solar farm would produce would be *'equivalent to the total annual consumption of almost 4,500 typical households'*.[18] This is a misleading metric and is in any case an incorrect calculation.

    i) It is misleading because domestic consumption is only approximately one third of total UK consumption, so the household equivalent metric tends to exaggerate the significance of the quantity involved, and may even give the impression that this number of houses could be made independent of the UK network, which of course is not the case due to the uncontrollably fluctuating nature of solar generation, which means that it cannot give a strong guarantee of meeting the instantaneous load of even a single house.

    ii) It is an incorrect calculation because the latest figure from DECC for adjusted average electricity consumption per household is 4,170kWh[19] rather than the 3,300kWh Ofgem figure used by the applicant. A corrected calculation would be:

15,000W	Rated capacity of proposed solar farm
x	
8,760	Number of hours in a year
x	
11%	Load factor as applied by applicant (i.e. % of time the PV units work)[20]
÷	
4,170	DECC's average household consumption figure as above
=	
3,466	Corrected equivalent households supplied

17. The UK's total final consumption of electricity in 2013 was 317.3 TWh.[21] On that basis the proposed solar farm would contribute only 0.0045% of UK electricity (15 x 8,760 x 11% ÷ 317,300,000 x 100) i.e. 4.5 hundred thousandths. Put another way, it would require nearly 22,000 such solar farms, occupying 1.7 million acres, to produce the UK's electricity needs.

[18] Environmental Supporting Statement page 6 section 1.3.2, 2nd paragraph

[19] DECC Energy Consumption in the UK (2014) 31 July 2014, Chapter 3 Domestic Energy Consumption in the UK between 1970 and 2013, page 7

[20] The applicant's use of a load factor of 11% is derivable from their figure of 14,500,000kWh at the same reference as footnote 18. The load factor used by DECC in its Digest of United Kingdom Energy Statistics (2013), Table 6.5 is however only 10%.

[21] Digest of UK Energy Statistics 2014 DECC press notice 31 July 2014 page 7 of 10 (available at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/342760/Press_Notice_2014_v2.pdf)

18. CPRE therefore believes that the relatively limited contribution that the proposed solar farm would make to UK energy needs is outweighed by:
    i) its severely adverse landscape and visual impacts,
    ii) the loss of productive agricultural land,
    iii) the limited economic contribution to the local economy, and
    iv) the inappropriate scale and aesthetics of the proposal in the open countryside.
19. On balance, the application should therefore be refused.

Yours sincerely

Charles Green

Chairman CPRE Oswestry