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Summary

Reference to Sources:

1. Quotes from the oral presentation of Mr Dominic Hare CEO of 'Blenheim'
   (Source 1) Open Floor Hearing 1 (OFH1) – Part 1 13 May 2025

2. Evidence from a tenant farmer who farms the land designated for panels would strongly disagree that this land is of poor quality. Under good management, the data presented, shows that the land is capable of producing above National average yields of cereals.
   (Source 2). (D.V H. Price & Son, Woodstock).

3. The impracticality of farming with sheep underneath and around the panels is also considered in the discussion below.
   (Source 3) A note on the management of fields with solar panels.
   Tom Lewis BSc Ag Sci

4. Southill Community Energy, anecdotal experience of 8 years' biodiversity
   (Source 4).

5. Analysis of land designated for solar panels in the Central area of BWSF. shows that over 40 percent of the land under consideration for panels is Best and Most Versatile (ALC classification 1, 2, 3a)
   (Source 5). Analysis of land designated for solar panels in the Central area of BWSF, Professor David Sherratt,

6. (Source 6) An analysis of Dominic Hare's statements on biodiversity..
   Professor Alex Rogers

Source 1

Quotes from the presentation by Mr Dominic Hare CEO of ‘Blenheim’

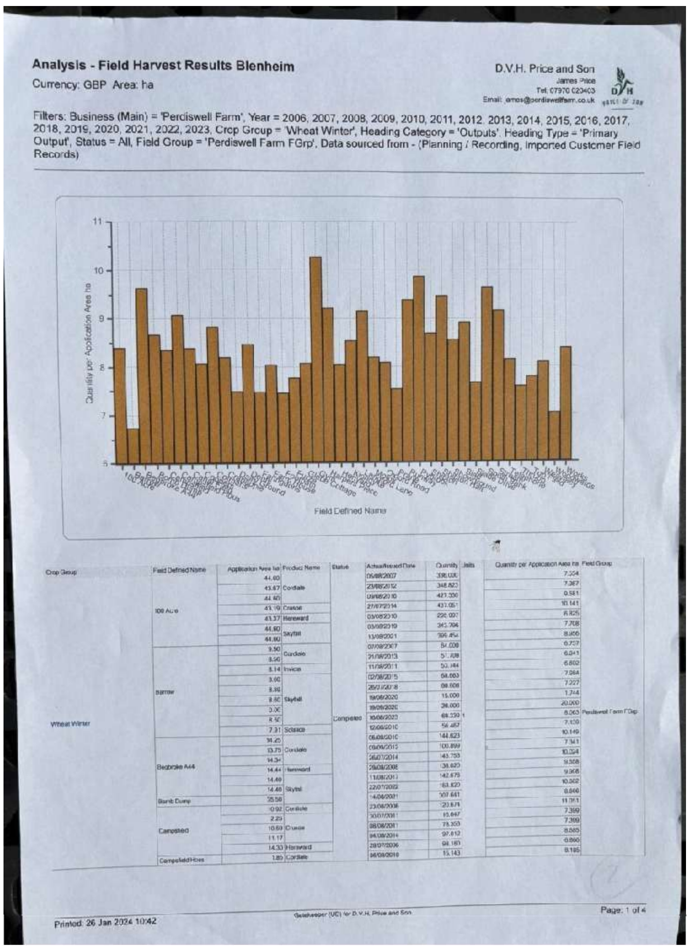
“This is land depleted, struggling to cope with increasingly volatile weather. And whilst our decision to grow food or leave fallow is not a planning consideration, I can without doubt say this is the poorest of our land for food production and therefore the most suitable for this project.

All this whilst maintaining farming, sheep grazing underneath and around the panels.”

Source: 2

Evidence of wheat yields on land in the Central Area of the BWSF.
The Manhattan chart shows wheat yields on 6 fields all of which are designated to have solar panels. The horizontal axis shows the field names and the vertical axis the yields of wheat. The Table shows the field names, land area (ha), time, and the last column the yields per land area. As an example, taking field "Begbroke A44" (PVDP designation 2.18) shows that between 2010 and 2022 the average yield of wheat was 9.560t/ha. The National average yield of wheat is 8.6t/ha.

This is not the outcome one would expect from poor quality land but is the result of crop rotation and good management.


Analysis - Field Harvest Results Blenheim

Currency: GBP Area: ha

D.V.H. Price and Son
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Filters: Business (Main) = 'Perdiswell Farm', Year = 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, Crop Group = 'Wheat Winter', Heading Category = 'Outputs', Heading Type = 'Primary Output', Status = All, Field Group = 'Perdiswell Farm FGrp', Data sourced from - (Planning / Recording, Imported Customer Field Records)

Crop Group	Field Defined Name	Application Area ha	Product Name	Status	Actual/Issued Date	Quantity	Units	Quantity per Application Area ha	Field Group
Wheat Winter	100 Acre	44.60	Cordiale	Completed	06/08/2007	338.000		7.324	Perdiswell Farm FGrp
		45.67			23/08/2012	348.823		7.367	
		44.60			09/08/2010	427.330		9.581	
		43.19	Crusoe		27/07/2014	437.051		10.141	
		43.37	Hereward		03/08/2010	296.007		6.825	
		44.60	Skyfall		03/08/2019	345.704		7.708	
		44.60			13/08/2021	399.454		8.956	
	Barrow	9.50	Cordiale		07/08/2007	64.008		6.757	
		8.50			21/08/2013	51.708		6.041	
		8.14	Invicta		11/08/2011	55.144		6.802	
		8.00	Skyfall		02/08/2015	56.683		7.084	
		8.30			26/07/2018	59.986		7.227	
		8.60			19/06/2020	15.000		1.744	
		3.00			19/06/2020	36.000		20.000	
		8.50			16/06/2023	68.539		8.063	
		7.31	Solace		12/08/2010	56.487		7.730	
	Begbroke A44	14.25	Cordiale		06/08/2010	144.623		10.149	
		13.75			09/08/2012	100.899		7.341	
		14.34			26/07/2014	143.753		10.024	
		14.44	Hereward		28/08/2008	138.623		9.558	
		14.49	Skyfall		11/08/2013	142.675		9.808	
		14.48			22/07/2022	144.820		10.002	
	Bomb Dump	35.58			14/08/2021	307.641		8.646	
	Campsfield	10.92	Cordiale		23/08/2008	120.871		11.061	
		2.20	Crusoe		30/07/2011	16.847		7.399	
		10.59			08/08/2011	78.353		7.399	
		11.17			04/08/2014	97.612		8.585	
		14.33	Hereward		28/07/2006	94.160		6.560	
	Campsfield Hoes	1.85	Cordiale		06/08/2010	15.143		8.185	

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Gatekeeper (UC) for D.V.H. Price and Son

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Source: 3

A note on the management of fields with solar panels

Consideration must be given to how areas of land covered with solar panels are managed during the lifetime of the solar farm. The most practical ground cover between the rows of solar panels is grass but without management this area will soon start to grow thistles, nettles, brambles, hawthorn, blackthorn and elder (see note Southill Solar), particularly those areas underneath the panels which do not receive much, or any, sunlight. This area must be managed otherwise the area will be overgrown and, in time, will grow to a height that will reduce the efficiency of the solar panels.

The most practical solutions to management of the area in a field of solar panels are:-.

1. Allow sufficient space between the rows of panels to allow mowing of the grass sward by tractor. This space may also be necessary to allow equipment access to service the panels which will require regular cleaning, repair and replacement. Mowing the grass rows will not prevent weed species, like those indicated above, from growing under the panels.

2. Allow sheep to graze the area. 'sheep grazing underneath and around the panels' will suppress the weed species but for an area the size of Botley West Solar Farm (1400ha), will require a large number of sheep, the equipment and staff to handle them. A reasonable stocking density on a regular farm with sheep would be about 10 ewes/ha. Solar panels on fields would reduce this to, say, 5 ewes/ha this would therefor imply a flock of 7,000 ewes. The infrastructure to manage this size of flock would mean barns and housing, for lambing and at least 7 shepherds, dogs and farm utility vehicles. This many breeding ewes should produce about 10,000 lambs per year to be marketed.

3. A combination of both these approaches will probably be necessary, but this will have an impact on the spacing of the panels and the amount of land required to produce the advertised electricity output.

Source 4:

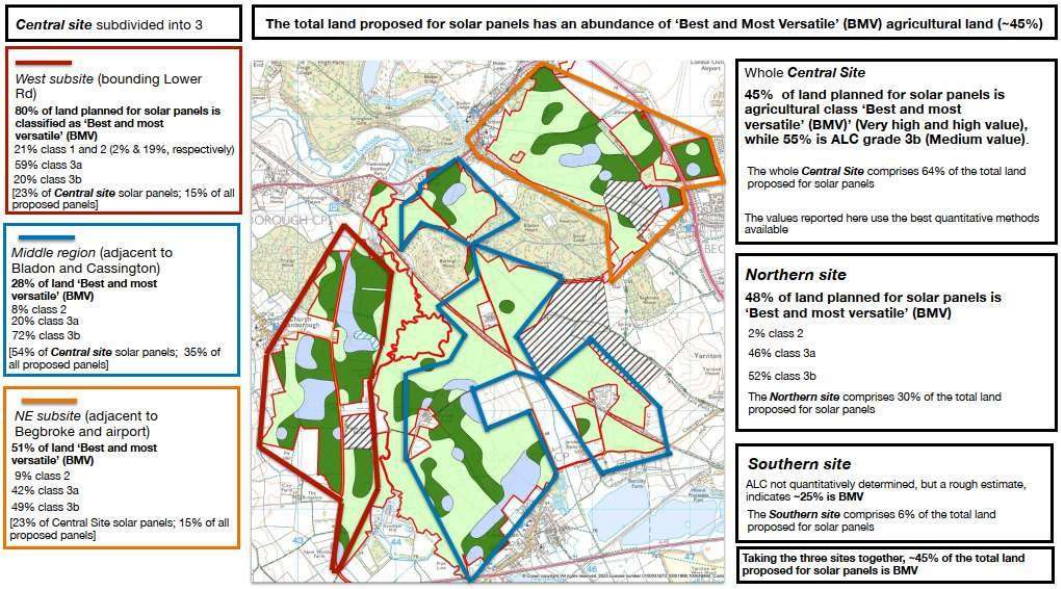
Southill Community Energy 8 years' experience of biodiversity

A further consideration that has been the experience, and confirmed, at Southill Solar Farm in Charlbury, Oxfordshire has been that it has taken six years since the panels were installed to be able to graze sheep on the area covered with panels because the grass sward had not recovered sufficiently after the panels were installed. In the meantime, the weed species have started to grow between and under the panels and without grazing sheep, management have had the problem of access to keep this area clear. The experience at Southill has been that the land not used for panels, about 40 per cent of the total, has seen an increase in biodiversity.

Figure 1
Southill Solar Farm at installation
Note the bare ground.

Source 5

Analysis of land designated for solar panels in the Central area of BWSF



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 to moderate 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.

Prof. David Sherratt FRS

Source 6:

Comments on Mr Dominic Hare's statements on biodiversity

Quoting from the Transcript of Dominic Hare at Open Floor Hearing 1:

"*And in the case of our recent solar site just north of Woodstock, we have quickly moved from a field barren of biodiversity to one where the soil is recovering. Flora and fauna grow to support wild bee populations, and carbon is sequestered underground. Hedges have grown up and the site is barely visible today. These benefits are measured and shared openly through our partnerships with the universities. We're just not seeing the biodiversity or wildlife losses that this project is accused of causing in a short time*."

We assume here that Dominic Hare is referring to the Weaveley Solar farm in Cherwell. This site is very small, a total of 20 acres, generating 7MW of energy. On the positive side Blenheim Estates have installed a wide range of environmental sensors to measure soil moisture and temperature, air temperature, humidity, precipitation and solar panel temperature. There is also acoustic monitoring for birds, bats and insects, bird boxes, camera monitoring of bee activity, surveys of the hedgerows and vegetation. These various approaches to environmental monitoring form a useful pilot scheme for such monitoring of the effects of solar farms.

On the negative side, the small size of the site means that much of data related to animals will likely be more influenced by the surrounding countryside than by the solar farm itself especially as many of the observations are taking place on the periphery of the site. A lack of robust and standardised sampling designs to study the effects of solar farms on the environment are a major issue as is the case with Mr Hare's statement (Gómez-Catasús et al., 2024). Whilst Mr Hare has described the fact that data from Weaveley are being made available for universities he neglects to point out that this is a single sample site. For such studies to be statistically robust they must adopt a Before/After/Control/Impact (BACI) design across multiple solar farms and control sites (Gómez-Catasús et al., 2024). Data from one site are insufficient to understand the impact of solar farms on various aspects of the environment including physical parameters and biodiversity. The exact location of the site could exert a strong influence on the results of observations and be, for example, exceptionally diverse or exceptionally species poor because of biophysical characteristics or through chance. Likely variation across sites where solar panels are installed must be taken into account by survey designs usually through replication and with one site this is not possible. We are provided with no details here of the science objectives of the Weaveley Site, the survey design including the statistical approaches to look for significant effects, what survey methods are aimed to measure and likely survey method biases (Bonar et al., 2011).

In conclusion, Mr Hare's statement about not seeing the claimed biodiversity losses is irrelevant as they are based on observations from a single small solar farm without replication across different solar sites and no data are presented demonstrating in a statistically robust manner that such a claim is true. His comment that the hedges are effectively hiding the site may reflect the maturity of the hedges in this location and the fact that the land is quite flat, unlike many other areas of the Botley West Solar Power Station in the Central and Southern sites where panels are on slopes.

References

Bonar, S.A., Fehmi, J.S., Mercado-Silva, N. (2011) An overview of sampling issues in species diversity and abundance surveys. In: Magurran A.E., McGill, B.J. (Eds.) *Biological Diversity: Frontiers in Measurement and Assessment*. Oxford University Press, Oxford, U.K. pp 11-24.

Gómez-Catasús, J., Morales, M.B., Giralt, D., del Portillo, D.G., Manzano-Rubio, R., Solé-Bujalance, L., Sardà-Palomera, F., Traba, J.,Bota, G. (2024) Solar photovoltaic energy development and biodiversity conservation: Current knowledge and research gaps. *Conservation Letters* **17**: e13025.

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