Re Varley Farm Solar Power station and the industrialisation of it's agricultural land.

(1) On the Heritage loss to 4 Listed properties :

The South Gloucester Conservation Officer Mr Rob Nicholson has stated in his report on the planning application :

- that Listed homes are not beneficially impacted by this proposed development
- That harm has been identified … giving rise to a statutory presumption agains granting permission
- the application is in breach of statute. A legal violation of Section 66(1) of the Planning (Listed Buildings and Conservation Areas) Act
- that he recommends the application for refusal

Further : Proposed hedging of 3.5 meters is not enough to obscure views of the proposed panels from the 15 meter high windows of the listed properties that look upon it

(2) On the exploitation of our area for a disproportionately large allocation to solar.

Taking a 5 miles radius circle of the proposed Varley Farm site gives a land surface area of 203.72 Sq KM.

Within this area there are 8 solar sites to consider. 6 are built, 1 is approved and 1 is pending and they total 566 acres.

- Built - Land north of Leyland Court Equestrian Centre = 80 acres
- Built - Land next to Tytherington Rocks FC Club, 30 + 7 acres = 37 acres
- Built - Land in Huntingford = 28 acres
- Built - Land in Upper Wick = 22 acres
- Built - Land north of Tyndall Farm Vet Practice = 19 acres
- Built - Land south west of Yate Common = 83 acres

- Approved - Land in Wickwar / Coalpit heath = 167 acres
- Pending - Land in Cromhall / Varley Farm = 130 acres (included in the calcs' below)

Total of 566 acres x 1.1 (which is the standard surveying 10% allowance for associated ground uses and turning, access tracks, hard standing, storage and measurement variance due to unclear boundaries etc give 626.6 acres gifted to solar in our locality.

622.6 acres (imperial) converts to 2.51 Sq KM (metric).

2.51 Sq KM is 1.23% of the 203.72 Sq KM 5 mile radius circle.

Divide the total Sq KM currently in use Nationally of 230 Sq KM into the total Sq KM of the whole of the UK (which is 243,610 Sq KM) and you get 0.0944 % of UK land is dedicated to solar in the UK.

So the UK national average of land under ground based solar = 0.0944 % of land.

Compare (1.23%) vs (0.0944%) and one finds that in the local 5 mile radius the contribution is **13 times higher than the UK national average !** Or 1,300% more than other counties and areas

Yet only circa 53% of the UK is given over to agriculture and within the 5 miles radius are the large towns of Thornbury, Yate, Chipping Sodbury with hundreds and thousands of acres of land given over to urban, industrial and several very large quarries - further reducing the land available to solar.

It is noteworthy that the largest Solar site in the UK (Shotwick Solar Park) is only 250 acres in size. Combined the Wickwar and Varley Farm sites (only 1 mile apart) would be 17 acres greater.

(3) On the £ negative effect on all local house prices

The presence of solar and wind farms on land nearby effects house prices due to reduced demand. This effect can be analysed by using pre and post solar and wind farm construction sales data and comparing them to national averages. So long as a statistically deep and wide enough data set is available to reduce issues of distribution such an analysis will provide a cast iron, factual and evidence based view of the house price impacts.

Needless to say the Green Energy sector detest and never fund any research into the negative effects of their business activities. Why would they ? They never feel the effects, only the gains at others expense. Therefore trusted 3rd party research is, unfortunately, an especially rare commodity.

Thankfully for homes next to or looking at solar farms and wind turbines 2 superb studies have been made :

A - The Global Study : Centre for economics and Business Research (Cebu) commissioned a report in 2014 on impacts of solar and wind farms on house prices using data from no less than 18 counties (Inc' the UK). The raw data was then analysed by the UK Royal Institute of Chartered Surveyors (RICS) in the UK in association with Oxford Brooks University.

Conclusion "Significant impact (on house prices) within 1 mile of solar or wind farms".

B - The National Study : by Dr Martijn I. Dröes (Amsterdam Business School, Faculty of Economics and Business, University of Amsterdam, Plantage Muidergracht)

and

Hans R.A.Koster (Department of Spatial Economics, Vrije Universiteit Amsterdam, De Boelelaan 1105, 1081, HV, Amsterdam, Netherlands)

Looked at no less than 35 years of sales data between 1984 and 2019. In this case Dutch property sales. Holland is is a peer country to the UK with impressively high Green values and a cultural commitment to climate change, so one can anticipate greater tolerance for Green power generation from its citizens.

Conclusion ="up to 2.6% reduction in house prices within 1 km of a solar or wind farm."

It is these ugly negative price impacts literally taking money out of all our wallets that the local population are fatuously being asked to accept and RES exploits.

Source materials :

You can read a copy of the Global Study here :

" https://cdn.ymaws.com/www.renewableuk.com/resource/resmgr/publications/reports/ruk-cebr-study.pdf "

A web based 3rd part summary of the study is available here :

" https://express-conveyancing.co.uk/the-impact-of-solar-and-wind-farms-on-homes/ "

Study 2 - National study (Commissioned by a neutral academic organisation, so reliable)

You can purchase a copy of the Dutch study here :

" https://cepr.org/publications/dp15023-0 "

A web based 3rd part summary of the Dutch study is available here :

" https://cepr.org/voxeu/columns/wind-turbines-and-solar-farms-drive-down-house-prices "

(4) Past, present and future Government policy on Solar

The 2022 environment secretary, Ranil Jayawardena was fully opposed to solar panels being placed on agricultural land, arguing that it impedes his programme of growth and boosting food production for the “Best and Most” Versatile land.

In 2022 it was decided right at the top of Government that the trading food security + increased inflation for small amounts of solar energy was no longer seen as a fair exchange.

We are given to understand that a policy revision to this was made when Thérèse Coffey took office in late 2022. The essence of the policy remained the same under her auspices. A clarification is in progress requested by Luke Hall, MP for Chipping Sodbury and Yate (the local MP for Varley Farm) and it is expected to be bad for the future of Solar Farms.

(5) RES (the developer’s) shame engagement with out any intention of genuinely understanding or representing the truth.

I firmly believe that there is a deliberate architecture of deception in operation throughout the RES and the paid for consultation papers. Such an accusation requires evidence and I have already revealed several omissions, but there are many more below.

It is noteworthy that planning sits inside a legal framework that relies upon the truth for its effectiveness. Imposing change on Listed Buildings without permission or in breach of statute is a crime. Planning evasion or misrepresentation is a crime punishable by imprisonment and or a fine. Usually both. Unfortunately there are so many in the materials that we are now faced with the philosophical question of at what point does the accumulation of so many let’s call them “accidental inaccuracies or omissions” become a deliberate attempt to misrepresent ? This is a matter for the courts of course. I am clear on my view however.

I would like to draw attention to the following :

No workings provided for any performance data claims in their materials. So how can they be believed ?

- In the proposal RES have stated the development would have the capacity of up to 25MW of renewable energy. This is a foundational claim and the benefits of this are used in multiple places to justify their application. Just like broadband speeds that is a peak capacity, never to be reached.

- An independent KW output calculation was therefore clearly necessary to test the 25 MW claim. A qualified and professional Environmental Scientist and graduate of Europes leading environmental University, with a specialism in renewable energy has provided her calculation. Using information provided in the planning application.

- Based on RES the developers claims that there could be up to 160 arrays of 40kwp

- Using commonly accepted and available solar performance data for the exact location and postcode of the site it receives 3.2 peak hours of sun. Equating to 128 KW per array.

- Assuming that the arrays are located at the optimal 35–40-degree angle and facing due south. For all 160 arrays that equals 20.480MW. Which is about 20% lower than the stated 25MW. Again that is a theoretic maximum never to be actually reached.

- We are therefore also potentially being misled on the amount of carbon dioxide saved and the number of homes who will benefit from this development. Yes, the marketing materials include the words ‘estimated’ and ‘approximately’ – but in our opinion being incorrect by 20% is neither of those two words.

Sham local engagement for marketing and indoctrination.

- The public engagement in both the Village Hall and the Questionnaire and the selective representation of concerns below amounts to an in-sincere attempt to manipulate a well intended and necessary process step. To then corrupt and subvert it for RES gain and make it work for the developer instead of actually endeavouring to listen, understand and mitigate.

- Suppression of questionnaire responses that RES can not or will not mitigate for as they make the proposal fail. As the questionnaire responses are entirely in the curation of the developer they have only highlighted and referred in their materials to the comments received that they can mitigate, and quietly ignored the ones which they can not.

- Further evidence for this is found in my own e-Mail comments sent to RES the developer on 27th July 2022 which are not represented nor dealt with in any of the application materials since I believe there is no mitigation available. So they ignore it.

- RES have of course therefore deliberately selected, subverted and misrepresented the well intended and conscientiously made objections that people took time over. In particular house value reduction and reciprocal gifts to the community to compensate do not feature in their materials.

Using non-experts to make statements outside their sphere of knowledge.

- The Transport Plan stating circa 520 vehicle movements. Only the building contractor can ever answer that question on vehicle movements and only after tender and supplier calculations are performed, none of which has happened.

- Also each vehicle visit is actually 2 visits - in and out with standing and manoeuvring time to be added too. So it is more like 20,000 inconveniences to others.

Passing off necessity as virtuous support for concerns.

- the junction of Farleigh Lane and Talbots End is un-navigable to articulated or above 12 tonne trucks. So the proposal is for an access track over the fields to the north of Varley Farm. This is a necessity, not a conscientious gift from an understanding developer as they try to make it out to be.

- the new access track could and should be used for ALL site traffic instead of just the massive trucks. So avoiding using the single carriage way Farleigh Lane at all - and therefore continuing to inconvenience local residents.
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- Conversion of opinion into fact - see noise, glare etc. This is evident in the Noise report where the zones of noise surrounding the inherently noisy transformer stations (buzzing, cooling fans and water pumps) is stated as “LOW” but that is then interpreted to mean “No impact” and they cite the No-Impact as a decision.

No recycling strategy

- Critically absolutely no recycling strategy or commitment is provided despite a statement that RES will decommission the site and return it to fields in 50 years time. How could they when it will be 50 years in the future, probably by another company, owner and / or operator entirely. Who is accountable, who will enforce it, where is the commitment, where is the guarantee and by who for what will be done ?

- Additionally it is not just the solar panels and their rare earth elements that require, separation, transport, crushing, melting and transportation into the recycling system. Several of the elements used are not worth recycling or not recycled at all and it is illegal to return solar panels to landfill yet they must be recycled because it is a legal requirement to recycle all solar farms infrastructure and materials. EG - concrete footings as concrete can not be recycled and is too expensive to simply crush for hard core so it is dumped instead. No strategy provided

- Studies dealing with the decommissioning cost of solar systems are scant. However, Nyserda (2020) describes the cost in the US in the order of $60,000 for a ground-mounted 2-MW solar panel system. That is over £600K in todays money. As no financial statement is provided the decommissioning money can not be shown to be existent, allocated or provided for. It is a phrase designed to pass planning and nothing more.

Other losses and evaded considerations

- This development will lead to the loss of 130 acres of fertile farm land which reduced the UK's valuable food production capacity and exacerbating food insecurity (now also critically affected by the ongoing war in Ukraine).

- The manufacturing of solar arrays includes mining for solar panel materials creating greenhouse gas emissions. Solar panel facilities are often powered by fossil fuels themselves and creating air pollution, and a huge amount of transportation to and from site with 1000's of visits in CO2 producing vehicles. Large amounts of water is often required to be pumped for the solar panels cooling process, and their constant washing as dust and muck greatly reduces performance. Additionally the energy required to recycle the solar arrays at end of life is not available and diminishes the already un-viable proposal.

Absence of reciprocal benefits for the community.

- No where in any of the application materials is there any provision made to recompense the local community for any of their measurable and evidence based loss and impacts / tolerance of the site.

No provision for what will happen to the existing Varley Farm

- buildings given the existing dairy herds use will be terminated and not needed for 50 years.

Water management strategy missing

- No provision is made for the flood and water management strategy for the site and the environment and neighbours. Giving over 130 acres over to hard standing, a construction yard and the angled surfaces of 130 acres of actual solar panels has a profound effect on the way precipitation is absorbed, the speed of that absorption, evaporation and no commitment is given on the flora or fauna that will be using the land in, around and under the 3.5 meter high solar panels. This is a gross omission in an area of completely flooded tracks, low lying runoff ditches and in our case a cellar that floods in heavy rain. It therefore should have been provided for.

Summary

Taken holistically this application is :

• divorced from it's Heritage setting and in breach of statute and multiple local policies
• divorced from a myriad of local impacts - hitting wallets but so many I won't repeat them
• divorced from the existing massive oversupply of solar within in 5 miles
• divorced from truth and honourably capturing in the first place let alone representing the true impacts on locals
• divorced from the full environmental impacts on farmland, ecology, blight, glare, noise

- divorced and secretive with a 20% exaggerated yield but with no commitment to how or if they will actually achieve it

The RES application and materials are a sham and casuistry of the highest order from start to finish and via the middle too.