Dear {Parish Clerk}

BOTLEY WEST SOLAR FARM

I am writing to you in your role as contact person for XXX Parish/Town Council about the proposed Botley West Solar Farm that would occupy a total of 3,400 acres (more than 2,600 football fields) of mostly farmland North and West of Oxford city, more than three quarters of which would be on Oxford's green belt. **If approved, Botley West would be the second largest Solar Farm in Europe (the biggest European one is in Spain), with bigger solar farms in China, India, the UAE and Egypt all in desert areas a long way from major settlements (Annex C).**

We have only until December 15th to respond to the first of only two developer-led consultations about this proposal, with a second due in Spring 2023. The Botley West proposal circumvents all local planning procedures and will go directly to the Government's Planning Inspectorate for final approval as a Nationally Significant Infrastructure Project (NSIP).

I have been a resident of Horton-cum-Studley for more than 40 years and am concerned about developments such as these covering green spaces so close to the city, and with little public scrutiny.

Your community is within 12 kms of the solar farm. Although you may think you will not be directly affected by these plans, I would ask you to consider what they will do to our city and county.

MORE INFORMATION ABOUT THE PROPOSALS

The Botley West Solar Farm, to be built on land owned by Blenheim Estates and Merton College, would be in three sections; one North of Woodstock, between Wootton and Tackley (331 hectares, 818 acres) one, the largest, between Kidlington and Eynsham (983 hectares, 2429 acres) and one just North of Cumnor and West of Botley (81 hectares, 200 acres). The three sites would be joined by a cable (below ground) and would feed into the national electricity grid via a new sub-station on the southern-most site near Botley (hence the solar farm's name).

Many new solar farms are being suggested as a response to the need to decarbonise our energy supplies in the face of the climate crisis. This important aim is often used to justify siting such farms in inappropriate places, for example on valuable agricultural land, near internationally important bird reserves (for example the Noke Solar Farm proposal, 43 hectares, near the RSPB Reserve on Otmoor), or within Areas of Outstanding Natural Beauty or green belts (for example the Nuneham Courtenay Solar Farm, 125 hectares, South of the city).

The Botley West Solar Farm would be an order of magnitude greater than the controversial Nuneham Courtenay Solar Farm which was approved by South Oxfordshire District Council following incorrect advice from its own officers about both District Council and Government policy in the form of the National Planning Policy Framework (July 2021 version) which states, para 151:

"When located in the Green Belt, elements of many renewable energy projects will comprise inappropriate development. In such cases developers will need to demonstrate very special circumstances if projects are to proceed. Such very special circumstances may include the wider environmental benefits associated with increased production of energy from renewable sources."

LOCAL PLANNING APPLICATIONS AND NSIPs

Most local planning applications are put on the local District Council's website. The public is invited to comment, and all such comments are freely available for all to read. The local Planning Department then takes a decision in light of those comments and explains why some have been

listened to and others ignored. The planning decision can be challenged, but this is usually by developers refused an application rather than by dissatisfied members of the public when an application is approved. Challenging a decision can be very expensive.

Botley West is being put forward as a Nationally Significant Infrastructure Project (NSIP) and is thus removed from direct control by the three affected District Councils (West Oxfordshire, Cherwell and Vale of White Horse). Under the NSIP rules developers, in seeking permission to go ahead in the form of a Development Consent Order (DCO), must submit a Statement of Community Consultation (SoCC) that defines how they propose to consult the affected communities and involve the affected Councils. The developer is in complete control of gathering information under its SoCC. None of the responses during any community consultation will be made available to the public, so we will not be able to judge the strength of feeling for or against Botley West Solar Farm.

The developer then submits its NSIP application directly to the Government's Planning Inspectorate (PINS) which appoints a Planning Inspector to examine the case. Planning Inspectors are chosen who have little or no knowledge of the local situation because their job is only to decide if due legal process has been followed. Appointed Inspectors are in full control of any examination of an NSIP proposal. Their deliberations need not be in public and, even if they are, the Inspector decides whether or not members of the public or Local Authority can speak at the hearings. As long as the developers have ticked all the relevant NSIP legal boxes, the Inspector is obliged to approve the application whether or not it is a good idea, and whether or not it is appropriate in the landscape where it will be built. **Annex A** contains some more information on the NSIP process.

The Botley West developers' timetable anticipates this whole process will be over, and the development decision (i.e for DCO approval) taken by early 2025, with construction starting in summer of that year, with installation completed during 2026. Government guidance on large Solar Farms is given in **Annex D**

Putting the Botley West Solar Farm proposal forward as an NSIP is therefore a way of short-circuiting any local or even District Council close scrutiny or opposition. It makes a mockery of local democracy and is a rather cynical way of ignoring those communities most affected by such very large developments.

MAPS OF THE BOTLEY WEST SOLAR FARM AND OTHER PLANNED DEVELOPMENTS

The downloaded folder contains the following additional files:

a) A map (OxondevelopmentsPlansites…..BotleyWest2050v2rs.pdf) of Oxford city and surroundings with all developments in current Local Plans shown in brown, all sites put forward for the stalled Oxfordshire 2050 plans in single cross-hatched grey and the Botley West sites shown in cross-hatched black. For comparison, the very much smaller Noke, Nuneham Courtenay and two other Botley Solar Farm sites are shown cross-hatched in black and outlined in red, green and yellow respectively. The 'official' map from which the Oxon 2050 sites came is also included in the folder (OxonPlan2050sitesrs.pdf). Not all of these sites might be selected for future development, but it is likely that many of them on this map will be, given Oxon's past commitment to growth.
If all development sites on this map go ahead, more or less the entire area between Bicester in the East and Carterton in the West will be built over by 2050.

b) A series of maps on a single page (OxfordsGreenBeltfuture.pdf) showing how much of Oxford's green belt is being taken over by development of one sort or other. The map at the top shows

the figures for the whole of the green belt; the one in the middle shows the figures for green belt areas within 2kms of the city's built-up areas; and the bottom one shows the same for areas within 1km of built-up areas. Areas close to the city are presumably those within easy reach of city dwellers seeking some green spaces for exercise and relaxation. The depressing conclusion from these maps is that if all proposed development goes ahead, Oxford will have lost more than a quarter of its nearest green belt areas by 2050. Notice from map at the top of this document that the Botley West Solar Farm will occupy almost as much of the green belt (3.1%) as all current Local Plan sites (3.5%), on which will be built c. 20,000 more houses.

More than three quarters (76%) of the Botley West Solar Farm would be within Oxford's green belt. Parts of Botley West would almost completely surround areas of Ancient Woodland (shown on the map). Is this what we want for our precious green spaces?

BUT ARE WE BEING NIMBYs? WHAT ARE THE ALTERNATIVES?

The developers make the case that Botley West could provide power for more than 300,000 houses – that's **equivalent** to all of the houses in Oxfordshire. But that calculation is based on the current electricity usage by the average UK household, in which 80% of total energy is currently provided by gas. So we need to divide 300,000 by five = 60,000 to get the number of totally electric houses that might be supplied by Botley West.

Those who object to Local Plans are often called 'nimbys' by developers. They are accused of being negative and are challenged to come up with some better alternative plan. It is not being 'nimby' to be concerned about the future of our county and, in this case, there are better alternatives that could generate as much electricity for a longer period of time during the year and which do not involve removing productive agricultural land. Offshore wind farms generate electricity on average for four times the period in each day that solar panels do (that is, their 'load factor' is four times as large). This is explained in **Annex B** where it is pointed out that the Government's Ten Point plan for a Green Industrial Revolution makes virtually no mention of Solar Farms.

A REQUEST FOR HELP

I am writing to you now to ask for your help in publicising this proposal as widely as possible within your local community (through direct contact or articles in newsletters, Parish magazines etc.) and to encourage people to express their opinions:

a) during the developers' consultation exercise (details are in the developers' brochure in the downloaded folder). Please note there is only ONE remaining chance to interact with the developers in this first consultation exercise - during a Community Webinar on December 5th, 5.30 to 7p.m. For this, you must register your attendance in advance at this website.

b) to your Local District and County Councillors (some have already expressed an opinion in an Oxford Mail article here) and

c) to your Local MP. Robert Courts, MP for Witney, has already expressed his reservations on his website here. In it he asks people (not just constituents) to fill in a simple online form "to ensure that I am able to reflect the strength of local feeling in detail."

Layla Moran, MP for Oxford West and Abingdon has also expressed her reservations in an Oxford Mail article here.

BOTLEY WEST <u>WILL</u> GO AHEAD IF WE DO NOTHING NOW

If no-one objects, claiming later that they were 'uninformed' about these proposals will carry no weight, either with the developers or the Planning Inspector.

Please do get in touch if you require any further information. I am also trying to alert campaigning groups in our area about these plans that, so far, seem to have been below most people's radar.

Please pass on this email and document links to anybody who may be concerned.

Please be in no doubt. We will experience Europe's second largest solar farm by default if we do nothing now!

Yours sincerely,

David Rogers

David Rogers, MA, D.Phil. (Oxon)

Professor of Ecology
Department of Zoology/Biology,
University of Oxford

Annex A. A brief guide to Nationally Significant Infrastructure Projects, NSIPs

Some people believe the NSIP process in some way maintains community control over local developments. In fact, it does the opposite. Here's an official Government website about NSIPs:

https://infrastructure.planninginspectorate.gov.uk/application-process/the-process/

The videos on this website are rather useful in explaining what happens at each stage of the NSIP process. A 2016 document (link below) gives a rather more user-friendly outline of the entire NSIPs process which is carried out entirely by the Planning Inspectorate (PINS) that appoints a Planning Inspector to carry out the official assessment of the proposal:

https://bettertransport.org.uk/wp-content/uploads/legacy-files/pdfs/companion-planning-process.pdf

Although this document was produced by Better Transport, the NSIP information applies to all NSIPs.

Another over-view with a timetable is from SSE here:

https://www.ssethermal.com/media/0kygfndo/overview-of-the-nsip-process.pdf

A few decades ago, NSIPs took a long time to come to a conclusion, much to the frustration of the Government. The NSIP over the routing of the M40 around Oxford, for example, took about a decade because, of course, there were lots of local objections to the originally proposed route straight through Otmoor.

Since the M40 and similar NSIPs the Government has tightened up considerably on the NSIPs process and has removed some of the original opportunities for local people to be involved. It shortened the entire timetable for an NSIP to the 14 months shown in the Better Transport and SSE documents above. That's a very short period of time in 'planning years'.

The 14-month NSIP process has a narrow window in which members of the public can register their interest in attending any NSIP meeting called by the Planning Inspector as what are called 'Interested Parties'. This window is immediately after the Inspectorate has decided to accept the developers' application and within the first four weeks of the next, Pre-Examination stage. Only interested parties might be given the chance to speak at meetings of the Planning Inspector. The short videos on the Govt. NSIP site (above) explain when interested parties might be invited to speak.

At the end of the Examination process the Inspector makes a recommendation to the Secretary of State to approve or not the proposal. Approval results in a Development Consent Order (DCO) allowing the developer to start construction.

There's a little more information about NSIPs/DCOs on the developers' website, under the 'Botley West' tab, here:

https://botleywest.co.uk/BotleyWest-DCO-Process.html

An obligatory part of a developers' NSIP submission is a report on the local community's response to the NSIP proposal (gathered under the rules the developer sets out in its Statement of Community Consultation, SoCC), including the response of the affected District Authorities. In Botley West's case there are two consultation periods, one that ends on December 15th 2022 and the second to take place in Spring 2023. These happen during the Pre-application phase of the NSIP process.

Botley West will not make public any of the individual responses it receives during the two public consultations. Only a summary report on the current first consultation will be made public as part of the second consultation after which the developer will produce a report on the communities' response for its NSIP application. The developer alone therefore decides what goes into this report and what is left out.

Once an NSIP application has been submitted to the Planning Inspectorate, there is very little anyone can do to change things. The outcome is decided by the Inspector not based on whether or not the proposal is a good idea but whether or not all the required legal steps have been taken. It's a legal box-ticking exercise.

Various sources stress that the best time to have any impact at all on an NSIP is at the Pre-Application stage, during the two consultation rounds announced by the Botley West proposers.

What the above emphasises is that NSIPs are tilted very much in favour of the developer and very much against the public interest. Botley West is going the NSIP route because of its size; any Solar Farm above an output of more than 50MW must be submitted as an NSIP.

We can learn a little more about what to expect by looking at other applications already farther down the NSIP pathway, for example the Oaklands South Derbyshire Solar Farm:

https://www.baywa-re.co.uk/en/solar/oaklands-solar-farm#latest-news

which says the following about the community consultation which it ran It ran from April to June 2022.

*"**Consulting the Community***
The Applicant is inviting the community living in the vicinity of the proposed Oaklands Solar Farm to take part in the statutory consultation and provide feedback on the Proposed Development. This is to ensure that those people potentially affected by the Proposed Development have the opportunity to understand the proposals and provide their views. Under the Planning Act 2008, the Applicant is required to take account of, and respond to, all feedback received and report on this within the Consultation Report that will be submitted with the DCO application."

Notice the phrasing here, which makes it clear that public comments will only be 'taken account of' in its Consultation Report. It says nothing about making any feedback comments available to the general public. This is a departure from the Local Planning process whereby each and every one of us can see - *verbatim* - each and every comment on an application via the District Council website.

NSIPs do not offer anything like that amount of scrutiny of all our responses. We will never know how many people object, or what they say.

It turns out that the bigger the project, an NSIP in this case, the less control the local community has over it.

Once a Development Consent Order has been approved by the Secretary of State the decision can be overturned only by Judicial Review (or Statutory Challenge). These are very expensive and again must be based on points of law rather than the appropriateness of the development

Botley West is offering two public consultations, the second to happen next Spring. Sounds very democratic, doesn't it?

The Oxford Cambridge Expressway also offered two consultations and local campaigners against the expressway talked with other groups who had similarly campaigned against other road schemes. They explained the benefit of consultations to the developers as follows. The FIRST consultation shows what the public thinks about a plan, including any technical problems with it, and allows the developers to iron out most or all of the likely complaints about it. The SECOND consultation checks the developers' understanding of all those public objections. The developer then goes into the NSIP/DCO process able to tell the Inspector (via the SoCC) that it's already dealt with all likely objections, which he is likely to accept. The alternative (no public consultation) could result in objections coming out during the Planning Inspector's meetings and the Inspector requesting a revised application thus delaying the DCO process considerably.

It is in the developers' interest, not the public's, that there are two rounds of consultation (you'll find this is what most NSIP developers do although they are legally obliged to carry out only one). In some cases, the public ends up doing the developers' work for them. For example, for the South Downs A27 Arundel bypass proposals it was members of the public who told Highways England about Ancient Woodlands and Sites of Historic importance along one of its planned routes - sites of which it was apparently unaware!

Annex B. Renewable Energy

Just how efficient is solar energy and are there other, better ways of generating 'green energy'?

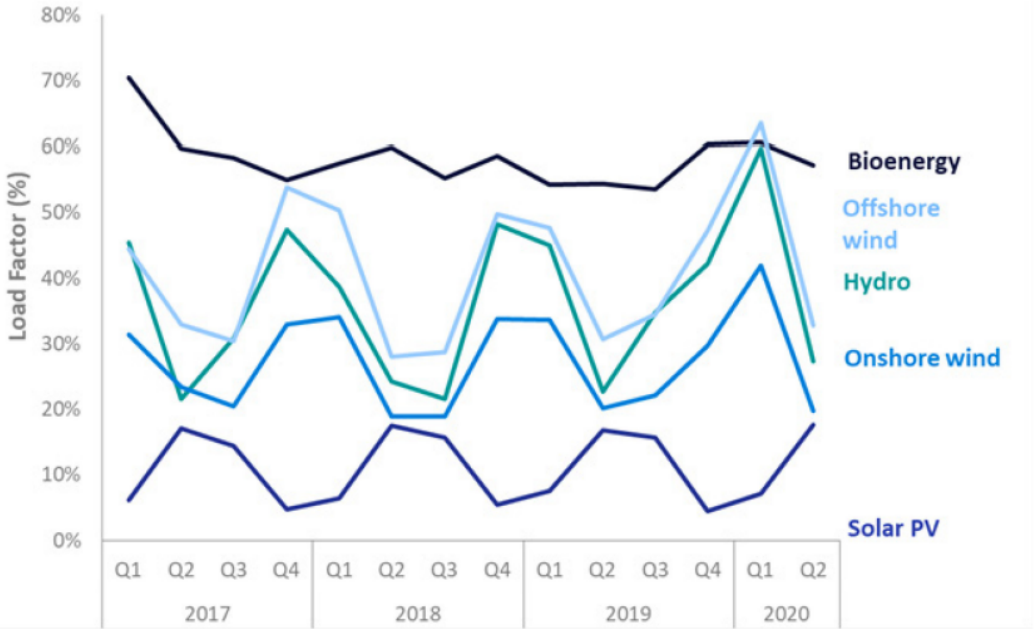
This 2020 DBEIS Energy Trends 2020 document:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/920544/Energy_Trends_September_2020.pdf

contains the following graph of load factors for different methods of electricity generation.

Chart 6.4 Renewable electricity load factors (Table 6.1)

Load factors are calculated as electricity generated by a technology as a proportion of maximum potential generation over the period, given the installed capacity.



The vertical axis on this graph shows the percentage of time each system is working at its stated full capacity – the 'load factor'. The graph shows obvious seasonal variation (horizontal axis time-scale) with solar PV having a higher load factor in Summer, when total energy demand tends to be lower, and on-, off-shore wind and hydro having higher load factors in Winter when energy demand is higher. Throughout the year, the average load factor of onshore wind is about twice that of Solar PV and of offshore wind is about four times that of Solar PV. So, for any stated maximum generation capacity (the figure normally given in the proposers' literature), offshore wind is generating four times as much electricity as is Solar PV.

For example, the proposers of the 25MW Solar Farm at Noke on the edge of Otmoor state that the sun at these latitudes shines brightly enough for full PV output for only 1,000 hours a year (these are of course equivalent hours; if the sun shines only half as brightly, then it would take 2,000 hours to give the 1,000 hours-equivalent of 'full sunshine'). 1,000 hours per year is equal to 2.74 hours each day or 11.4% of the 24-hour day/night cycle. This is more or less the load factor of Solar PV in the above graph. However efficient solar panels might be, they are victims of the day night cycle, and of the weather. The world's largest solar farms are in deserts and other sunny places, for obvious reasons!

The low load factor of Solar PV arrays at our latitude calls into question the whole policy of promoting Solar PV, especially when it is put on productive agricultural land. There is a developing food crisis (the UK presently imports 46% of its food from abroad) because of current geo-political struggles (Ukraine) and climate change, which means we must aim to be much more self-sufficient in the future.

While a wind-farm instead of a Solar PV farm in the Botley West site could in theory generate just as much electricity (at a rate of 8.2 acres per MW of power, within the rather wide range of 2 to 40 acres per MW power given for wind-farms), still allowing for 'normal' agriculture to be practised between the wind turbines, the effects on the landscape would be much more dramatic and probably unacceptable.

Off-shore wind-farms however pose none of these problems; they work at twice the load factor of on-shore wind-farms, take up no agricultural land and are too far away for most people to notice they even exist.

In fact, not only do they exist already, they are providing significant amounts of wind-power at present. For example in 2020 the UK's 2,500 installed offshore wind turbines provided 11.5% of the nation's electricity, compared with 9.4% for onshore wind, 9.0% for solid biomass and only 3.9% for solar photovoltaics. All renewables combined provided 39.6% of total demand with nuclear, gas and oil providing the remainder. On some windy days the wind-turbine figure rises to 50%.

Britain's 12GW offshore wind capacity is the world's second largest, with plans to increase it four-fold (to 50GW) by 2030, enough to power every home in Britain when the wind is blowing:

https://oeuk.org.uk/wind-energy-the-uks-offshore-industry-can-boost-turbine-installations-3-fold-to-help-reach-net-zero-but-planning-must-be-made-easier-says-offshore-energies-uk/#:~:text=The%20UK%20has%202%2C500%20offshore,generated%2015%25%20of%20UK%20electricity.

If successful, the Botley West Solar Farm construction will start in Summer 2025 at the earliest, taking at least two years to build and with enormous disruption of the local communities.

And how important is Solar PV's contribution to future UK energy requirements? The Government's 10-point plan for a green industrial revolution is here:

The Ten Point Plan for a Green Industrial Revolution (publishing.service.gov.uk)

This plan, subtitled "Building back better, supporting green jobs, and accelerating our path to net zero" emphasises offshore wind, Hydrogen and nuclear power. There is barely a mention of solar power (only in connection with Contract for Difference (CfD) arrangements, a Government insurance for energy providers to subsidise them against losses should open market prices for energy fall below the cost of production).

With an almost unlimited area of sea in which to put wind-farms, delivering its energy more when its needed (winter rather than summer - see above graph), and with a four-fold increase in efficiency (i.e. load factor) compared with solar, without taking any agricultural land out of food productivity, isn't offshore wind the sensible way to go?

And it's not in anybody's backyard.....

Almost as important is what happens at end-of-life of a wind turbine (solar panels are notoriously toxic). This video explains how more or less all parts of decommissioned wind turbines can be re-used or re-cycled:

The truth about wind turbines - how bad are they? - Bing video

Battery storage on Solar Farms

One of the solutions to the problem that the sun shines for only a short time is to store solar energy in on-site batteries, for release when the sun is not shining. Botley West will not have any on-site battery storage, although one of the developers at the community meeting in Eynsham recently mentioned the possibility of connecting Botley West to the National Grid via the Cowley substation that does have batteries. The batteries here are experimental with a maximum capacity of 55MWh, and are designed to produce power for EV re-charging sites in the city. They would not be big enough to store anything like the output of Botley West. At 840MW capacity and with 3 hours mean sunshine per day, Botley West will output 2,520 MWh power per day – 45 times the Cowley substation battery capacity!

In any case, battery storage of such large amounts of energy itself poses problems.

Solar company Sunica is proposing a 500MW farm on the Cambs/Suffolk border (Botley West is 840MW, so considerably bigger even than Sunica's solar farm)

Sunnica Energy Farm - Homepage

There are local objections e.g. here

https://www.saynotosunnica.com/

which points out the dangers of very large battery storage of energy, e.g. here

https://www.saynotosunnica.com/bess

Lithium batteries don't just catch fire. They actually can explode when they do so (there are dramatic videos of this happening on the above website).

Interestingly, the arguments for battery storage are not solely driven by the need to provide solar energy over a longer period of time (e.g. when the sun does not shine). By storing energy in batteries the suppliers can restrict energy flows when energy demands - and prices - are low, and release it when prices are higher i.e. a purely commercial decision. They're private companies after all, with obligations to shareholders, not to the general public.

More information about solar

The Solar Campaign Alliance is a joint venture between resident-driven action groups opposing the rapidly growing issue of large-scale solar developments on UK farmland driven by a lack of clarity from conflicting government policies.

https://www.solarcampaignalliance.info/

Annex C The World's largest Solar Farms

Botley West would be the seventeenth largest Solar Farm globally, according to Wikipedia (November 2022; constantly changing as new farms are announced!) .

https://en.wikipedia.org/wiki/List_of_photovoltaic_power_stations

The document WorldsBiggestSolarFarms.pdf in the downloaded folder shows Google Earth clips (same scale) from the top sixteen such farms, plus Botley West. The world's largest solar farms are in or on the edge of deserts with few or no local inhabitants, let alone major towns. Contrast that with Botley West (also shown in that document, position 17 in the list). It's the wrong proposal in the wrong place and would blight our green belt and landscape for at least the next 30+ years.

Annex D. Government Guidance on Solar Farms

For a useful House of Commons Library briefing large Solar Farms please see this March 2022 document:

https://researchbriefings.files.parliament.uk/documents/CDP-2022-0051/CDP-2022-0051.pdf

The legislation for large solar farms is not yet completely settled. The above report records that MP Sir Edward Leigh asked a parliamentary question about a 500MW Solar Farm proposal for Gainsborough, Lincs (i.e. much smaller than Botley West's 840MW)

Solar Energy: Agricultural Land

Asked by: Sir Edward Leigh

A planning application has been submitted for a giant solar farm around Gainsborough, with an area equivalent to 5,000 football pitches. It is designed to be a so-called national infrastructure project in order to bypass all local planning. Local people will have no control; this development will enrich a few local landowners, and some entrepreneurs in London. Is it not time for an urgent discussion throughout Whitehall about how we can stop these companies bypassing local planning and secure proper community gain and the protection of agriculture, and, for instance, ensure that there are buffer zones around villages?

The official response contained no answer to Edward Leigh's question. His concern that large solar farm applications will bypass local planning obviously also applies to Botley West.