Proposed Solar Power Station on Land West of Boxted, Suffolk

Ecology Statement

by Dr Anthony Vivian BSc (HONS BIOLOGY)
for Save Glem Valley
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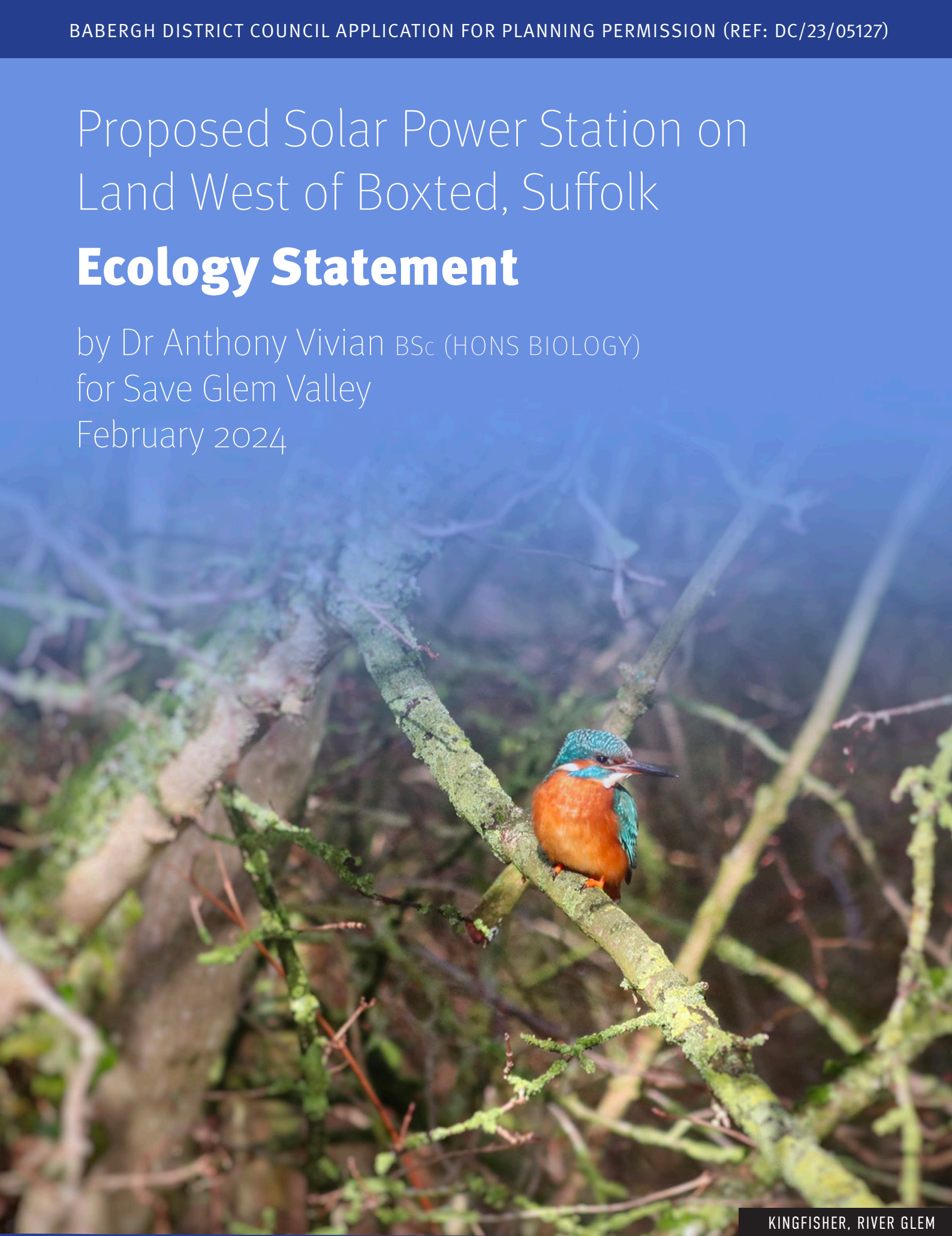

KINGFISHER, RIVER GLEM

SAVE GLEM VALLEY

Ecology Statement on Behalf of Save Glem Valley regarding Planning Application: Construction of a solar farm with all associated works, equipment, necessary infrastructure and biodiversity net gains. **DC/23/05127**

1. **INTRODUCTION**

1.1. This statement has been prepared by Dr Anthony Vivian BSc (Hons Biology) MBBS on behalf of Save Glem Valley, a group of local residents opposed to this development.. I am not an ecologist but have a science background with over 50 peer reviewed publications and have done an extensive literature search on the subject of ecology and solar installations. I have local knowledge as I have lived in the centre of the proposed solar park area for 29 years. I have a long-term informed interest in bird life with a particular interest in raptors.

1.2. For the purposes of this statement, I have reviewed the Ecology submission prepared by BSG Ecology Ltd, the skylark mitigation plan, BNG statement, the response by Place Services (dated 08/12/2023), The Arboreal Plan, Suffolk Police Design Out Crime Officer report and other documents listed in Section 3 below.

SUMMARY OF SGV'S CONCLUSIONS

- The site is a key part of a delicately balanced ecosystem which will be harmed if development proceeds.
- Recent legislation requires a demonstration of attempts to halt species decline and to show biodiversity net gain
- Local Planning authorities share that responsibility.
- NPPF requires refusal where significant harm to natural heritage interests cannot be avoided.
- The application falls into that category; the impact on protected species will be severe.
- Successful mitigation of predictable harmful effects will not be possible.

2. **PLANNING CONSIDERATIONS**. The following are some of the relevant planning laws, Plans, and Guidelines, relevant to this question:

- Wildlife and Countryside Act 1981 (Amended); Schedule 1 part i
- Natural Environment and Rural Communities Act 2006 (Section 40) updated to:
- Environment Act 2021
- Conservation of Habitats and Species Regulations 2017
- Protection of Badgers Act 1992
- Crime and Disorder Act 1998
- National Planning Policy Framework (NPPF) Revised Dec 2023
- Babergh and Mid-Suffolk Joint Local Plan Pt 1 (Nov 2023)
- National Fire Chiefs Council (NFCC) Grid Scale Battery Energy Storage System Planning – Guidance for FRS (2022).

3. **DOCUMENTS AVAILABLE** (most from Babergh District Council Planning portal)

- BSG Ecology Ltd Ecological Assessment (Oct 2023)
- BSG Ecology Ltd Biodiversity Net Gain assessment (Oct 2023)
- BSG Ecology Skylark mitigation plan
- BSG Ecology Skylark Mitigation Fields
- Place Services Ecology response (Dec2023)
- Arboricultural impact assessment (Barton Hyatt Associates Oct 2023)
- Arboriculture response
- BMSDC Public Realm Officer report (21st Nov 2023)
- Biodiversity Net Gain landscape masterplan (Pegasus Group Oct 2023)
- Suffolk Police Design Out Crime Officer Report
- Suffolk Fire and Rescue Response (20th Nov 2023)
- Suffolk Wildlife Trust: Solar Farm Development and Biodiversity
- Suffolk Wildlife Trust response to BSG ecology assessment
- Badger Trust "*Badger protection: Best Practice Guidance for Developers, Ecologists and Planners August 2023*"

4. SKYLARK

4.1. The breeding bird survey identified at least nine territories likely to support skylark breeding pairs across the proposed solar park site. As pointed out in the BSG ecology report, there is evidence-based research showing that Skylark will not breed or forage among solar panels. They require open fields away from potential predatory perches.

4.2. The mitigation policy is significantly flawed.

4.2.1. The strategy suggests that the number of breeding pairs can be increased threefold relying on a single reference (Donald and Morris 2005)[1]. This observational uncontrolled study showed that the number of males increased by threefold over five years on land that was changed by adding skylark plots, 6m wide field margins and set-aside. The same study quotes that in 15 farms that introduced skylark plots alone, in a controlled study, the increase in skylark population was 30% compared to the control fields.

4.2.2. The reference referred to in the Place Services Ecology response (Donald *et al* 2002) [2] reports the three-fold increase in skylark nest survival rates **on the introduction of predation control,** is unrelated to skylark plots and, as such, is not relevant to the mitigation plan. Morris et al had shown in 2004[3] with a replicated controlled study that skylark breeding pairs increased from 0.2/ha to 0.3/ ha with skylark plots.

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[1] Donald P.F. & Morris T.J. (2005) Saving the skylark: new solutions for a declining farmland bird. British Birds, 98, 570-578.

[2] Donald P.F., Evans A.D., Muirhead L.B., Buckingham D.L., Kirby W.B. and Schmitt, S.I.A. (2002). Survival rates, causes of failure and productivity of Skylark Alauda arvensis nests on lowland farmland. Ibis 144:652–664.

[3] Anthony j Morris, John M Holland, Barbara Smith, Naomi E Jones. Sustainable Arable Farming For an Improved Environment (SAFFIE): managing winter wheat sward structure for Skylarks *Alauda arvensis Ibis (2004),* ***146*** *(Suppl. 2), 155–162*

4.2.3. A more recent study from Sweden (J Warnback; Skylark Plots 2018 Appendix 1) showed that skylark numbers increased from between 25-60% by the introduction of skylark plots. The higher success was in fields larger than 15 ha.

4.2.4. A realistic expectation is that the introduction of skylark plots may increase the breeding pairs of skylark by about 30-40% at best in fields that could support an increased population (i.e fields that do not already contain a maximum density of territories).

4.2.5. The skylark mitigation plan supporting this application is suggesting that skylark breeding population would increase by a remarkable 300%. This figure is simply not credible or evidence based. Part of one of the suggested fields has already been allocated to a new woodland strip (which may well result in the loss of the currently identified territory by increasing predation). The inevitable loss of at least nine skylark breeding pairs as a result of this development cannot be mitigated by the proposed plan. 10 times more land would have to be contributed to the mitigation area to support the loss in breeding territories.

4.3. The decline of this important and SPI protected farm bird (estimated 50% decline in 40 years) will be exacerbated by this development contrary to NERC 2006 (updated 2021) and the Babergh and Mid - Suffolk Joint Local plan LP16 para 3 which states:

> *Development which would have an adverse impact on species protected by legislation, or subsequent legislation, will not be permitted unless there is no alternative.*

5. OTHER PROTECTED FARMLAND BIRDS

5.1. The BSG bird survey identified many other birds protected by Schedule 1 of the Wildlife and Conservation Act 1981 (Sch1), Species of Principal Importance for the Conservation of Biodiversity in England in Section 41 of the Natural Environment and Rural Communities Act 2006 (SPI) and Red or Amber Category 'Birds of Conservation Concern' (BOCC).

5.2. Many of these birds were identified as present on the *three bird survey mornings* of the BSG Ecology survey, many of which were probably breeding within or adjacent to the proposed solar farm area.

5.3. Of note (in addition to the previously discussed skylark population) are the SPI Red Listed birds: yellowhammer, linnet, grey partridge, reed bunting, dunnock and song thrush as well as a long list of Amber Listed birds commonly seen in and around the site. Because the surveys were done during the spring/summer months the presence of the winter thrushes, redwing and fieldfare which are currently over-wintering residents in mixed flocks over the affected fields were not detected by the survey. These are Red-listed Birds of Conservation Concern and are protected under the Wildlife and Countryside Act 1981, Sch 1.

5.4. We have two barn owls (Sch 1) resident in our barns in the centre of the proposed site. I regularly see them hunting over the affected fields in the mornings and evenings. Kestrel are common foragers in the summer months.

5.5. Twenty years ago, Red Kite (Sch 1) were a very rare sight in this area. We now have an increasing population of birds and this year included juvenile birds, suggesting that they are breeding locally.

6. BATS

6.1. The Ecology report by BSG Ecology on behalf of the applicant includes the results of an extensive bat survey including static recordings over three 5 days periods.

6.2. These results show significant bat activity over the whole site with ten species and one species group identified with 22,851 movements (Section 4.41 Table 12). The conclusion of the bat survey was (para 4.49):

"*…the results of the bat survey suggest that the site provides foraging and commuting habitat for a wide range of bat species that might be expected to be recorded in eastern England, including SPI barbastelle, soprano, pipistrelle and brown long-eared bat. The results also indicate that three bat species regularly roost within, or in close proximity to the site: Barbastelle, common pipistrelle and brown long-eared"*

6.3. The BSG Ecology report conclusions on impact assessment for bats includes (para 7.12):

"The Proposed Development avoids works adjacent to potential roost trees, creates buffers adjacent to them, converts arable land to grassland and enhances the condition of hedgerows on the Site. This will lead to a minor improvement in foraging habitat and foraging resource for bats, potentially increasing their population on site. Accounting for these avoidance and enhancement actions, the result is a ***minor beneficial effect*** *at the local level".*

6.4. We agree that there may be a minor increase in foraging habitat by infilling hedges. However, we completely disagree that the overall effect of minor mitigation policies will result in a minor beneficial effect. There is increasing evidence that bat populations are severely compromised by solar installations, and this proposed site has a large and flourishing bat population which would be hit as hard as any.

6.5. A recent study (2023) from the University of Bristol[4] studied 19 solar farm sites and compared them to control sites and found that bat activity was significantly affected by solar installations. They found "*The activity of six of eight species/species groups analysed was negatively affected by solar PV panels, suggesting that loss and/or fragmentation of foraging/commuting habitat is caused by ground-mounted solar PV panels"*. Bat activity in the centre of the solar arrays was reduced by up to 87%. They conclude: "*Ground-mounted solar photovoltaic developments have a significant negative effect on bat activity, and should be considered in appropriate planning legislation and policy. Where a solar PV site is proposed in proximity to a roost, or on a known important commuting route, of the species which have so far been identified as affected, then consideration should be given to whether alternate siting of the development, at a less sensitive location within the ecological landscape, would be more appropriate*."

6.6. Post-construction monitoring of a solar farm on the Gwent levels in Wales (Appendix 2) has found that "*the diversity of bat species decreased markedly and, for a majority of locations, the abundance of species has dropped dramatically (95-100%)"*.

6.7. The area for this proposed solar energy park is an ancient eco-system with medieval woods and hedges forming field boundaries extending down to the river and other areas of woodland that have been unchanged for many centuries. It remains unclear what it is about solar installations that bats take such an objection to but this proposed solar plant will have a profound effect on the bat population and it is difficult to predict the extent of the reduction. Evidence from the Bristol study and the study from the Gwent levels suggest that the bat population may be devastated.

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[4] Elizabeth Tinsley, Jérémy S. P. Froidevaux, Sándor Zsebők, Kriszta Lilla Szabadi, Gareth Jones Renewable energies and biodiversity: Impact of ground-mounted solar photovoltaic sites on bat activity J Applied Ecology 2023;60

6.8. The only mitigation suggested by the applicant is putting some bat boxes in trees. This misses the whole point; it is not a loss of roosts which is going to profoundly reduce the bat population but the loss of foraging and migration routes by surrounding them with solar panels. There is no mitigation which can ameliorate the substantial harm.

6.9. The gap between Park Wood and Hedgerow 7 has been identified by the bat survey (para 6.7) as being "*an important route for Babatrelle bats commuting from Park Wood (where they are considered to have a roost) to the Glem River*". Whereas the Landscape plan suggests leaving the gap at the current size, this infringes the root system of Park Wood which should be 15m from any infrastructure. As pointed out by BMSDC Public Realm Officer (para 3-4):

> *"The Arboricultural Impact Assessment shows buffer zones alongside the woodland blocks. National guidance is that there should be a* ***minimum 15m buffer zone between development and any ASNW****. Looking at the plan, this is the maximum provided and in some places, most notably to the north-west corner of W1, there is barely* ***a 5m buffer*** *with what looks to be an access track constructed within the root spread of the woodland.* ***This is unacceptable and all development must be kept outside this 15m buffer zone****. Moving the track may result in the loss of a small section of the end of hedgerow H7 but this would be of lower significant than the damage that could be done to the ASNW"*.

6.10. Removal of more than 10m of hedge will significantly affect this important bat migration and foraging route and reduce the claimed BNG of linear assets.

6.11. Bats are protected in law by the Wildlife and Conservation Act 1971 (amended) and the Conservation of Habitats and Species Regulations 2017 and are protected by the Babergh and Mid-Suffolk Joint Local Plan 2023.

> .It is an offence under the Conservation of Habitats and Species Regulations 2017 (para 43 2a) to affect significantly the local distribution or abundance of bat species, and to cause any disturbance which affects a bats ability to survive, breed, rear young, hibernate or migrate. A bat's ability to survive is heavily dependent on reaching and feeding at foraging areas in safety and free from predation, and also on an abundant food supply.

6.12. Developing a solar Park on this site which has been identified to contain a significant population of 10 species of commuting and foraging bats is contrary to these laws, the effect cannot be mitigated and so planning on this site should be refused.

6.13. From **Babergh and Mid-Suffolk Joint Local Plan (LP16 para 3)**:

> "*Development which would have an adverse impact on species protected by legislation, or subsequent legislation, will not be permitted unless there is no alternative."*

7. **<u>PROTECTED MAMMALS (INCLUDING BADGER)</u>**

7.1. Protected mammal species using the site for foraging and migration, the adjacent ancient woodland blocks (Country Wildlife Site Citation numbers Babergh 26, 27, 28), hedges and River Glem include badger, brown hare, otter, water vole, hedgehog and possibly Hazel Dormouse. A large population of deer migrate between the woods and the river along the hedgerows

7.2. Two badger setts were identified by the badger survey including a complex collection of badger setts extending for almost 50m on the North side of field 1, extending into the field (***please redact before public publication***) There is no mitigation plan for badger (other than providing mammal gates; see below).

7.3. The original plan suggested that the solar plant would be contained with deer fencing and that there would be mammal gates allowing small mammals such as brown hare to gain access to the site. Because of increasing crime related to ground mounted solar sites, police and insurance companies are now insisting on security fencing rather than deer fencing (which provides no significant security deterrence). The Design Out Crime Officer of Suffolk Police is a statutory consultee and has made the following comments (Section 1) regarding this application which has an impact on managing the ecology:

7.3.1. Approved fencing contractors should be ISO 9001:2000 approved, and fencing should meet BS1722 standards and there are government security standards for such establishments which should meet SEAP (Security Equipment Approval Panel) class 1-3, preferably at least class 2.

7.3.2. The police through their subsidiary section Secure By Design (SBD) recommend that any perimeter fencing or security gates for a location should at least meet Security Rated (SR1) tested standards that will provide at least 1 minute against constant attack. Although it would be preferred if such fencing met an attack rating equivalent to Security Rated (SR2) that can withstand at least 3 minutes of constant attack

7.3.3. It is noted that the battery storage areas will be secured in ISO style containers. The perimeter security around these areas needs to be strong and reinforced with perimeter detection systems. One such police approved system is the Perimeter Intruder Detection system (PIDs), which is an armoured rapid deployment structure that provides twenty-four-hour monitoring from an alarm receiving centre that on detecting movement records images of what is occurring, along with 4,000 high efficiency white light illuminators that enhance the control centre's view of the images they are seeing and can communicate in real time with an offender

7.3.4. it is strongly recommended that there is good lighting around the entrance to again enhance CCTV imagery. All lighting should meet BS5489:2020 lighting standards

7.3.5. The entrance gate design is a concern and a more robust entry system is requested to delay an offender accessing the area. The gates should be attack resistant, being devoid of climbing aids, supplemented by some suitable anti-climb topping to make it harder for an offender to access (SBD Commercial 2023, Paras 30.2--30.7 and Paras 77.1-77.3 refer).

7.3.6. A number of solar farms employ roving security vehicle patrols to monitor their sites and this is strongly recommended. It is also strongly recommended that these security personnel have body cameras, that are only activated to obtain evidence when a trespasser or an offence is in progress or about to occur

7.3.7. *Drainage ditches are strongly recommended around the majority of the perimeter of the site to make it harder for a vehicle to be able to access any areas onto the property*

7.4. The Crime and Disorder Act 1998 requires local authorities to demonstrate a duty to implement crime and disorders strategies in areas including wildlife and the environment.

7.5. BS1722 level security fencing is incompatible with mammal gates which would compromise the security rating. The mesh type of fencing means that the site will exclude protected mammals including hedgehog, hare, otter and badger, and prevent the passage of deer to the river. This security fencing and suggested security lighting will have a severe impact on badger activity.

7.6. Under the Protection of Badgers Act, 1992 it is illegal to disturb, damage or destroy a badger's sett, whether the act was committed intentionally (malicious crime) or without knowledge of their legally protected status (negligent crime).

7.7. As is made clear in the Badger Trust guidance to developers, ecologists and planners, Natural England's standing advice is:

> "*Badgers could be affected if the development proposal causes damage to setts, loss of setts, loss of foraging areas or disturbance to badgers whilst they're occupying setts. Dangers to badgers can also occur during any development works on a site. Such disturbance can arise from noise, lights, vibration, fires or chemical use".*

7.8. Reasonable Avoidance Measures (RAMs) during development to ensure badgers are unharmed such as avoiding disturbance, including noise and vibration near active setts, keeping heavy machinery/excavation work away from setts, and avoiding activity between dusk and dawn when badgers are most active.

7.9. Use of noisy plant or machinery should cease at least two hours before sunset and not commence until an hour after sunrise to avoid causing a disturbance to badgers or preventing access or egress to setts.

7.10. In our view, the presence of an extensive badger complex extending onto the site requires a formal badger mitigation plan as outlined in the Badger Trust guidance, to prevent harm to badgers by excavation, piling and lighting at night. The presence of badgers is of **material consideration** when it comes to planning applications and If adequate mitigation cannot be provided, then planning permission should be refused.

8. **8 BIODIVERSITY NET GAIN**

8.1. In January 2023 the Office for Environmental Protection published its review of progress in 2020/21 towards targets in the 25 Year Environment Plan. Part of the outcome of that review identified that:

"*Progress on delivery has fallen far short of what is needed. Many extremely worrying environmental trends remain unchecked, including a chronic decline in species abundance. Between 2013 and 2018 there was a 17% decrease in the abundance of priority species, comprising part of a chronic decline of 82% between 1970 and 2018*"

8.2. Also in January 2023 the government published, in its Environmental Improvement Plan, actions proposed to meet the targets required by the 2021 Environment Act. These include halting the decline in species abundance by 2030 and an increase in abundance by at least 10% by 2042, while the number of species on the Red List Index for England must improve ' (i.e. be reduced).

8.3. We welcome any increase in biodiversity in this Special Landscape Area. However, we take issue with the applicants Biodiversity Net Gain statement. It is important to bear in mind that the governments BNG metric tool is only a tool to estimate an increase in habitat units. It **explicitly excludes species.**

> Principle 4 of the metric tool (v4.0) states: *This biodiversity metric is not a complex or comprehensive ecological model and is not a substitute for expert ecological advice.*

8.4. BNG estimations need to be realistic and deliverable and should be additional to changes required by the project structural build. As pointed out by the Suffolk Wildlife Trust **Solar Farm Development and Biodiversity Planning Guidance Note for Suffolk:**

> *"Solar farm proposals should aim to achieve significantly more than 10% biodiversity net gain, due to the ease with which they typically exceed this through the standard practice of converting farmland to higher biodiversity value grassland for ease of management during the operation of the solar farm. Gains achieved in this way are not considered to be 'additional to' what would be achieved by a typical solar farm development in the absence of a BNG requirement. Applications for solar farm developments should demonstrate how they will deliver additional BNG on top of any achieved through the conversion of farmland to higher biodiversity value grassland within the area of the solar array".*

8.5. We agree with Suffolk Wildlife Trust's assessment of the applicant's BNG proposals:

8.5.1. "A rough assessment using the Defra Metric 4.0 suggests that creating other neutral grassland in poor condition on arable cropland sees an increase in Biodiversity Units of around 80%. We therefore put forward that a vast amount of the net gain delivered by the proposals, projected to be 99.18% / +82.24 Units, will be from land with a primary aim of delivering renewable energy

and any vegetation present underneath panels will be heavily shaded by an impermeable, man-made surface.

8.5.2. In light of this, we draw the attention of West Suffolk Council and the Applicant to the CIEEM Net Gain Principles[1], notably 'Principle 7: Be Additional - Achieve nature conservation outcomes that demonstrably exceed existing obligations (i.e. do not deliver something that would occur anyway)' and urge that the applicant demonstrate that the proposals deliver a net gain of at least 20% from land which is not primarily used for energy generation"

8.6. In our view (which is supported by post-development site reviews), because of the North-East facing nature of the site and the orientation of the panels, shading, dryness and temperature changes under the panels, the grass would be very poor quality with limited nutrient value which would not sustain grazing and could not be considered to be a realistic BNG.

8.7. There are opportunities for solar park developers and land owners to deliver realistic biodiversity improvements (Randle-Boggis *et al* 2020)[5] . If managed appropriately a biodiversity improvement of the land surrounding the panels and the enclosure could be achieved but this management takes effort, an understanding of the challenges and a financial commitment that the solar industry in this country at present has not demonstrated.

9. 9 NOISE AND LIGHT

9.1. Noise and light influences have been inadequately assessed by the proposal. In particular, the acoustic report was submitted before the addition of twelve battery units to the development so the noise impacts are unknown.

9.2. The extent of light pollution remains unknown since the security advice of the Suffolk Police DOCO and **this requires assessment**.

9.3. The impact of noise and light on species is poorly understood. Bats, owls and badgers will be particularly affected by night-time illumination, especially in this "dark skies" area.

9.4. The effect of construction noise (especially pile driving) and operational noise (especially battery unit cooling fans) have not been studied but are likely to influence a wide range of wildlife. In our view, the acoustic and light impacts need to be formally assessed before a determination can be made.

10. BATTERY ENERGY STORAGE SYSTEMS (BESS) AND THE ENVIRONMENT

10.1. There is a concerning lack of detail in the application concerning BESS. At present, Lithium-ion BESS are not subject to "Control of Substances Hazardous to Health (COSHH)" legislation although there is a Bill going through parliament to make this mandatory. This, however, does not absolve the Council and the Developers from a legal obligation to protect the residents, animals and environment from "foreseeable" harm related to a BESS development.

10.2. Under the Planning (Hazardous Substances) Act 1990 and The Planning (Hazardous Substances) Regulations 2015, hazardous substances are defined in Schedule 1 Parts 1-3 of the 2015 Regulations. Part 3 of Schedule 1 clearly states that the Act covers instances:

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[5] R.J. Randle-Boggis , P.C.L. White , J. Cruz , G. Parker , H. Montag , J.M.O. Scurlock , A. Armstrong.

Realising co-benefits for natural capital and ecosystem services from solar parks: A co-developed, evidence-based approach. Renewable and Sustainable Energy Reviews 125 (2020)

"Where it is reasonable to foresee that a substance falling within Part 1 or Part 2 ("HS") may be generated during loss of control of the processes, including storage activities in any installation within an establishment, any substance which is used in that process ("S")."

10.3. This means that if any of the named hazardous substances in Part 1 and Part 2 are generated in a loss of control such as during a thermal-runaway, then they are covered by the Act and Regulations. Compounds released during BESS runaway events include Hydrogen Fluoride (HF), cadmium and highly inflammable gases including Hydrogen (H2), Methane (CH4), Ethylene (C2H4) and Carbon Monoxide (CO). The limitation of damage and contagion resulting from thermal runaway events require copious water drenching for sometimes as long as 48 hours and requiring millions of litres of water.

10.4. There is ample worldwide evidence that thermal runaway and explosion relating to BESS is a real risk, becoming more frequent with the increase in BESS facilities. There were six published major events reported on the EPRI BESS Failure Event Database in Europe and USA in the last six months of 2023.

10.5. As such, the risk of an explosion and/or thermal run-away event is "foreseeable" and release of toxic chemicals into the environment becomes a criminal offence under Planning (Hazardous Substances) Act 1990 and The Planning (Hazardous Substances) Regulations 2015. Such an event would be devastating to local wildlife, the human population (with the prevailing south-westerly wind blowing toxic gasses into Boxted Village) and the environment. There is a foreseeable risk that, because the development is on a hill, water run-off containing highly toxic hydrofluoric acid, cadmium and other compounds would travel through the aquafer into the River Glem and subsequently the Stour Valley AONB.

10.6. In our view, this planning application cannot be determined without a detailed Risk Management Plan; an Emergency Response Plan; a Safety Management Plan and a Post-Incidence Recovery Plan as made clear in the National Fire Chiefs Council (NFCC) Grid Scale Battery Energy Storage System Planning – Guidance for FRS (2022) . The Council and the Developer have a legal responsibility under section 7(2)(d) of the Fire and Rescue Services Act (2004) to have detailed plans to reduce the risk of fire and to protect the environment and the population. Without such plans, the impact on the ecological environment cannot be appropriately assessed.

11. SUMMARY AND CONCLUSIONS

11.1. The proposed 43 ha site is within an ancient ecosystem composed of medieval woods, agricultural fields and hedge systems running down to the River Glem. This ecosystem has evolved over hundreds of years, is delicately balanced with a rich diversity of species: flora, invertebrates, birds, raptors, bats and larger mammals. Many of these species are protected in law in order to slow and eventually reverse the decline that has occurred over the last 40 years.

11.2. In Europe, under legislation (**The Conservation of Habitats and Species Regulations, 2017**) it is an offence to deliberately disturb wild animals including bat species (Regulation 43, (1b)) and to affect significantly the local distribution or abundance of the species (Regulation 43, (2b)).

11.3. The Government's Environment Improvement Plan 2023 to achieve the outcomes set out in the **Environment Act 2021** places great weight on developers and planners to make decisions compatible with halting the decline of species abundance by 2030

11.4. Planning authorities also have a responsibility under **The Natural Environment and Rural Communities Act 2006 (updated 2021)**, s.40 which requires that "*every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, the purpose of conserving biodiversity"*

11.5. The National Policy Framework (July 2021) states that when determining planning applications, local planning authorities should apply the principle that if significant harm resulting from a development cannot be avoided, mitigated or, as a last resort, compensated for, then planning permission should be refused.

11.6. **Babergh and Mid-Suffolk Joint Local Plan 2023 (LP16 para 3) states:** *Development which would have an adverse impact on species protected by legislation, or subsequent legislation, will not be permitted unless there is no alternative.*

11.7. This solar plant application will cause significant harm to identified populations of protected birds including skylark, bat species and mammals including badger, with no, or inadequate mitigation. The inevitable consequence will be a serious decline in the biodiversity of species contrary to international, national and local laws and guidelines listed above.

11.8. Although the Biodiversity Net Gain tool can be used to demonstrate a small increase in habitat units by filling in gaps in hedges and some new tree planting, it explicitly excludes species and should not be used to obscure the inevitable effect that industrial development will have on this delicate historical eco-system and its rich diversity of species which is unlikely to ever recover.

11.9. In our view, it is not possible to mitigate against this severe impact on species protected by legislation, that this area rich in species diversity is the wrong place for such a development and consequently planning permission should be refused.

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on behalf of Save Glem Valley