Kingsway Solar Community Action: Response to the Statutory Consultation

October 2025

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Executive Summary

The Kingsway Solar Farm proposal represents one of the largest industrial-scale renewable developments ever proposed in this part of Cambridgeshire. While Kingsway Solar Community Action (KSCA) and the wider community strongly support renewable energy and the UK's Net Zero objectives, the current scheme and consultation process falls far short of the standards required for public accountability, environmental protection and long-term sustainability.

Premature and Inadequate Consultation

The consultation process is premature and poorly executed. Representatives at the public events were unable to answer basic questions on design, construction impacts or long-term management, reflecting a lack of preparation and poor leadership from the developer's senior team. Community engagement was tokenistic rather than participatory. Residents reported a consistent failure to provide meaningful dialogue, with questions deflected or unanswered and technical detail withheld. This approach has undermined local confidence and exacerbated mistrust in the developer's intentions.

Key aspects, including solar panel locations, construction traffic routes, grid connection design, BESS safety and site drainage strategy, remain undefined. This over-reliance on the *"Rochdale Envelope"* approach defers too many critical details until post-consent, effectively excluding residents, local authorities and statutory consultees from meaningful participation in decisions that will affect them for decades.

Deficiencies in Design and Evidence

The PEIR and accompanying documentation continue to demonstrate a general lack of site-specific knowledge. Soil, hydrological and ecological surveys remain incomplete or based on provisional data. Flooding, groundwater pathways and local watercourses have been inadequately assessed, raising serious concerns about risks to the chalk aquifer supplying drinking water to over 350,000 people. Similarly, construction traffic impacts on narrow rural roads have not been modelled or mitigated. No defined routing strategy, compound siting, or Construction Traffic Management Plan has been presented for scrutiny.

Environmental and Land Use Impacts

Despite national policy protections, the project proposes to industrialise over 750 hectares of Best and Most Versatile (BMV) farmland, much of which is high-quality Grade 2 and 3a land. The claim that this loss is *"reversible"* is scientifically unsound. The developer's understanding of how non-panel areas will be managed remains incomplete, with no substantiated plan to achieve the claimed >10% Biodiversity Net Gain (BNG). This lack of clarity undermines both the environmental integrity of the proposal and public confidence in its long-term stewardship.

Landscape and Visual Amenity

The proposed development would significantly and permanently alter the local landscape, conflicting with South Cambridgeshire Local Plan Policies NH/2 and NH/6 and the Greater Cambridge Green Infrastructure Strategy, which seek to protect open countryside, long-distance views and rural tranquillity. Kingsway Solar identifies major to moderate adverse effects from key viewpoints at Balsham, West Wratting and Fleam Dyke, but downplays their significance. Other key viewpoints, such as those from Carlton, Weston Colville and Willingham Green, are neither included nor assessed in the PEIR. Extensive arrays, fencing and lighting would erode rural character and visual amenity for decades. All of these proposals contradict Section 15 of the National Planning Policy Framework emphasising the requirement to protect and enhance valued landscapes, including woodlands and fields, by recognising 'the intrinsic character and beauty of the countryside'. In the 2025 KSCA Community Survey (Appendix A), over 95% of respondents cited loss of landscape and visual amenity as a primary concern, underscoring the project's failure to reflect both local policy and community priorities for landscape protection.

Wider Context and Public Perception

Nationally, support for renewable energy remains high. Surveys by the Department for Energy Security and Net Zero (DESNZ) suggest that most of the public express general approval for solar energy in principle.[1] However, local evidence tells a very different story. In the 2025 Kingsway Community Survey (Appendix A), over 90% of respondents opposed the project, citing concerns about the loss of agricultural land, landscape character and biodiversity, alongside significant effects on community wellbeing.These findings underline a critical reality: public support for renewable energy depends on trust, transparency and good governance. Large-scale solar schemes risk losing legitimacy, and discrediting the entire sector, when they disregard local context and cumulative impacts, and their promoters fail to properly communicate with local communities. Without effective engagement and responsive design, they risk eroding the very public trust required to deliver the UK's green transition.

Conclusions and Next Steps

KSCA concludes that the Kingsway Solar proposal, in its current form, is premature, under-evidenced and inconsistent with national planning policy. Key issues, including extensive BMV land loss, aquifer risk, landscape harm, cumulative impacts and lack of enforceable management plans, remain unresolved. KSCA asks that these deficiencies are addressed through new, evidence-based consultation and full technical disclosure, and that the local communities most affected by these proposed developments are given the opportunity to meaningfully assess them Public confidence in renewable energy is a national priority and to maintain that confidence, the planning system must ensure that projects of this scale are transparent, scientifically robust and locally accountable. As it stands, the current proposal is unacceptable in both design and evidence base, as well as substantially incomplete at the level of basic empirical data.

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[1] DESNZ Public Attitudes Tracker: Renewable energy, Summer 2024, UK Support for renewable energy. Available at: https://www.gov.uk/government/statistics/desnz-public-attitudes-tracker-summer-2024/desnz-public-attitudes-tracker-renewable-energy-summer-2024-uk#:~:text=64%20and%2065+.-,Support%20for%20renewable%20energy,past%20year%20at%20just%203%25.&text=RENEWSUPPORT.,our%20electricity%2C%20fuel%20and%20heat?&text=While%20there%20was%20little%20difference,the%20East%20Midlands%20(40%25).

KSCA will continue to work closely with residents, parish councils and local MPs to ensure that local voices are properly represented and that future renewable energy projects in this area are developed in a way that respects communities, protects the environment and upholds public trust.

Introduction

Kingsway Solar Ltd (hereafter named Kingsway Solar), part of Downing Group LLP, is proposing to build a large-scale, grid-connected solar farm across three parcels of land in South Cambridgeshire as set out in their Preliminary Environmental Impact Report (PEIR). This scheme would be adjacent to the settlements of Balsham, West Wratting, Weston Colville, Weston Green, Carlton, Willingham, Brinkley and West Wickham. The proposed farm would comprise 500 MW (peak) electricity output co-located with a battery energy storage (BESS) facility of between 900-2100 MWh and with a connection to the high voltage electricity transmission network at the proposed new grid substation at Burwell South.

The scheme is proposed to cover 1246 ha of prime agricultural land, split into three Land Parcels A, B and C with the following dimensions:

A = 213 ha
B = 490 ha
C = 543 ha

Additional land will be required for inter-array connection corridors, which lie outside of the current land parcel boundaries, requiring around 312 ha. The high voltage grid connection will run in an “indicative” 15 km route parallel to the A11, crossing at the A14 south-west of Newmarket and on to Burwell. The grid connection corridor covers an area of 1116 ha to allow design flexibility, but the final land area requirement is unknown.

According to the head of NSIP projects, David Vernon, (although not set out in the documentation) Kingsway Solar aims to complete construction by 2031 and be fully operational by 2033. The operational start date is contingent on the Burwell South substation being completed on time. Kingsway Solar will be paid penalties if the connection is not ready by this time.

Kingsway Solar Community Action (KSCA) has conducted a detailed analysis of the PEIR as part of the Statutory Consultation process. In addition to examining the documentation KSCA met with David Vernon and attended a number of the Kingsway Solar consultation events.

Our methodology has been to break the analysis down into specific topic areas in order to assess the developer’s progress in providing a detailed design with identified impacts, mitigations and community compensations. The results of the analysis are set out in the sections that follow. Each section highlights the areas of key concern, the deficiencies identified in Kingsway’s approach and analysis and KSCA’s recommendations for necessary compliance or adequate mitigations. Where it is believed that mitigations or re-designs will not alleviate significant harms we state our objections to the proposal.

KSCA has conducted a survey of local residents to understand community opinions, feelings and attitudes. This has been used to inform our thinking and approach in presenting our findings on the scheme design and PEIR. Any objections that might be raised are not in a vacuum, but fully informed by the community in which we all live.

As a matter of principle KSCA wants to protect the local communities' way of life, sense of well-being and ensure that we can maintain our close connection with the local landscape. All of these are placed at risk by this proposed development. While rural communities have economies that have traditionally provided food for towns and cities, major solar developments disrupt and degrade this contract. Revenue generated from fields of solar panels bypass the local communities and profits flow to opaque investors who have little or no interest in valuing the local landscape, its ecology or its productivity (other than for electricity generation).

These large scale solar facilities have harmful visual impacts, cause degradation of agricultural land, destroy ecosystems and carry extremely high risk of land and water contamination. These and other harms need to be demonstrably mitigated before any permission to build and that any compensations are transparently and equitably designed. We agree with the current Secretary of State for Defence, John Healey, who has written a letter of complaint about Whitestone 1 Solar Farm in his constituency, stating *"...every project must still meet* ***three tests.*** *It must be proportionate, it must be safe, and it must be fair."* In applying these tests to the current Kingsway Solar proposals, the scheme falls significantly short on all three counts.

Principle of Development: Need for Kingsway Solar

Need, Policy and Site Selection

- **Failure of Sequential Test:** The developer has not provided robust evidence of compliance with the NPPF and NPS EN-1 requirement to prioritize brownfield and lower-grade agricultural land before using Best and Most Versatile (BMV) land.[2] Over 750 hectares of Grade 2/3a land are at risk of permanent industrialisation without sufficient justification.

- **The Need for the Scheme:** Volume 1 section 1.4 leans heavily on the government requirements for low carbon generation, but shows no analysis for why large scale solar is relevant or justified. A statement of need will be required for the DCO application, but this level of justification is missing at this stage. We would have expected to see some analysis of the energy contribution that the project will deliver to the UK (we estimate less than 0.2% of GB electricity demand), together with a full justification of why BESS is needed to be co-located with the solar arrays. Solar schemes at this scale can be shown to present high operational risk to the national electricity system, while increasing wholesale energy prices. A statement should be included about whether BESS will be used solely for the purpose of avoiding curtailment, or otherwise used for arbitrage and enhanced revenue generation. The latter should, in reality, negatively impact the scores that PINS assign to the value of the scheme to UK policy, since arbitrage does not improve carbon performance of a scheme, while it does add to the wholesale cost of electricity.

- **Planning Practice Guidance for Rural Areas — Protecting Rurality:** Section 7 of Planning Policy Guidance (PPG)[3] on renewable and low carbon energy states that the need for renewable or low carbon energy does not automatically override environmental protections, that cumulative impacts both within large projects and across several different projects require particular attention, that local topography is an important factor in assessing whether large scale solar facilities could have a damaging effect on landscapes and that renewable energy developments should be deemed acceptable for their proposed location. In terms of ground mounted solar photovoltaic facilities, the PPG recognises that the deployment of large-scale solar facilities will have a negative impact on the rural environment, particularly in undulating landscapes. However, it sets out measures to address these negative impacts, including the following measures:

    - 3.9 The needs of walkers, cyclists and horse riders will be taken into account whenever development would affect routes used by riders or where the potential for the creation of new paths along strategic routes would be jeopardised. Suitable replacement paths will be required when routes used by walkers and riders will no longer be suitable for continued use as a result of other changes to the road network or new development.

[2] Solar projects must fit with food security. Available at: https://www.gov.uk/government/news/solar-projects-must-fit-in-with-food-security#:~:text=That%20includes%20protecting%20'Best%20and,by%202035%2C%20up%20to%2070GW. (accessed October 2025)

[3] Department of the Environment. *Planning Policy Guidance 7: Countryside.* London, UK: HMSO; 1997. Updated March 2001.

- ENV7: Development proposals likely to affect local areas of nature conservation significance, such as County Wildlife sites, ancient woodlands, wildlife habitats, sites of ecological interest and Regionally Important Geological/ Geomorphological Sites, will not be permitted unless the need for the development outweighs the local significance of the site to the biodiversity of the District. Where development is permitted the authority will consider the use of conditions or planning obligations to ensure the protection and enhancement of the site's conservation interest.

The valued attributes of the proposed Kingsway site that are most sensitive to change include the rolling landform of the hills and valleys, mixed wooded and arable character of the landscape and the wide open views of a 'worked' countryside encompassing a network of intact ancient hedges, stock fences, waterways, farm tracks, bridleways and footpaths. Linear tracts of broadleaved woodland are a further feature, along with intact medieval field patterns and traditional buildings such as thatched cottages set within small picturesque rural villages and farmsteads contributing to the sense of time-depth. The area, which has been inhabited and farmed since at least the tenth century, retains a strong rural character with high levels of tranquillity, especially in Parcel C, which currently has a distinctly remote quality at the very far Eastern edge of the county bordering the Suffolk County line.

In sum, the key principles guiding best planning practice and policy in the countryside follow three core principles: protection, sensitivity and avoidance. Wherever possible the obligation to protect, enhance and conserve the unique rural character of the countryside – including its heritage and visual amenity, as well as its 'natural capital' and material assets – must guide the design of any development in rural areas. Given the considerable lack of detail in the current proposal it is not possible to determine if this over-riding obligation has been met.

- **Weak Justification for Site Selection:** The primary rationale cited for selecting the site is grid connection availability (Burwell 400kV OHL capacity). This is not a valid planning justification, as grid access only determines feasibility, not planning or environmental acceptability. There is no evidence that other land areas of known lower grade were explored or assessed. It is understood that the genesis of the project arose from the land in Parcel A becoming known to the developer and that subsequent land owners were approached when this initial site was identified. The site selection appears to be driven by opportunity and expedience rather than detailed appropriate site analysis.

- **Lack of Full Disclosure.** We note that the Transmission Entry Capacity (TEC) register contains three separate entries for Downing Renewable Developments (DRD) LLP with the name Rat Hall Farm (the former name used for Kingsway Solar)[4]. Two of these share the same project number (either -1 or -2), and appear to be modified applications. The third has a different project number. The first two projects have a total capacity of 700 MW (200+500) and the third shows a capacity of 200 MW. We reproduce the relevant entries in Table PoD 1. We note that most other DRD LLP projects are given a single line entry (e.g. Meridian at 750 MW). This

[4] NESO Transmission Entry Capacity Register, Available at: https://www.neso.energy/data-portal/transmission-entry-capacity-tec-register, (accessed 20 October 2025).

strongly indicates that information about the proposed capacity and future intent for the site are not being fully disclosed to the community. There appears to be every likelihood that should the current proposal be approved for DCO that there are additional connection agreements that could be called upon in future. This concern is augmented by the significant amounts of land within the scheme boundary not being used for solar PV arrays and infrastructure that are designated as 'developable areas'.

Project Name	Customer Name	Connection Site	Stage	MW Connected	MW Increase / Decrease	Cumulative Total Capacity (MW)	MW Effective From	Project Status	Agree-ment Type	HOST TO	Plant Type	Project ID	Project Number
Rat Hall Mod App	Downing Renewable Developments LLP	Burwell South 400kV Substation	1	0	200	200	30/10/2032	Scoping	Direct Connection	NGET	Energy Storage System;PV Array (Photo Voltaic/solar)	a0l8e000000f41YAAQ	PRO-003824-1
Rat Hall Mod App	Downing Renewable Developments LLP	Burwell South 400kV Substation	2	0	500	700	31/10/2034	Scoping	Direct Connection	NGET	Energy Storage System;PV Array (Photo Voltaic/solar)	a0l8e000000f41YAAQ	PRO-003824-2
Rat Hall Solar	Downing Renewable Developments LLP	Burwell South 400kV Substation		0	200	200	31/10/2032	Scoping	Direct Connection	NGET	Energy Storage System;PV Array (Photo Voltaic/solar)	a0l8e000000f4xCAAQ	PRO-003892

Table PoD 1: Entries for Rat Hall Farm (former name for Kingsway Solar) in the Transmission Entry Capacity Register

- **Conflict with Environmental Balance:** The developer's own Landscape and Visual Impact Assessment admits that the visual harm from the overhead lines and PV arrays is *"major, significant"* and *"cannot be fully mitigated."* This undermines compliance with the NPPF mitigation hierarchy, which requires avoidance and minimisation of harm. Many of the panel locations are highly exposed with no possibility of effective screening.

- **Failure to Pursue Highest Mitigation:** The option to underground the OHL has been rejected, despite being the only measure capable of avoiding the most severe residual harm. This weakens the *"need outweighs harm"* argument and demonstrates non-adherence to mitigation obligations. Placing solar arrays on highly exposed and notable areas of landscape are also unmitigated.

- **Conflict with Strategic Resources:** The site is located over a Principal Aquifer (SPZ 1/2). BESS firewater contamination risk poses a disproportionate hazard to a critical national water resource, contravening the Water Environment Regulations 2017. Plans for guaranteed safe operation of this plant have not been presented.

What KSCA Asks from Kingsway Solar

- **The Need for the Scheme:** A full and credible statement of need for the scheme should be presented pre-DCO application, including the precise contribution to UK energy needs and how it will not compromise safe and economic operation of the national energy system. This should go beyond merely stating how the peak

generating capacity contributes to the national capacity targets for solar. Energy, carbon, delivered energy cost and system security and resilience should be included in the analysis.

- **Guarantees of no future added capacity:** A full set of legally binding guarantees must be provided within DCO that the stated generation capacity of 500 MW will not be exceeded, that no future electricity generation or storage capacity will be added within the scheme boundary and that no future boundary extensions will be sought. KSCA demands a clear and unequivocal explanation of the entries in the NESO TEC register for the three projects named as Rat Hall.

- **Site Selection and BMV Breach:** A full sequential site selection report is required detailing why brownfield and lower-grade land were rejected. Without this, the proposal should be deemed invalid under the NPPF. There should be a transparent statement about the method by which the site was identified and the basis on which it was selected.

- **Unmitigable Harm:** The admitted permanent visual harm and residual noise constitute adverse impacts that demonstrably outweigh localised benefits. If these cannot be mitigated the project must be considered untenable.

- **Precautionary Principle:** The aquifer contamination risk from BESS firewater is not characterised nor mitigated. The final design must demonstrate without any conceivable doubt that the aquifer will not be compromised for the duration of the project. This is likely only to be possible if the site is relocated away from source protection zones, while not being closer to residences. We demand exclusion zones of 3km for such hazardous installations.

- **Highest Mitigation:** Undergrounding of the OHL must be considered beyond constraints of cost alone. This is particularly important in locations impacting scheduled monuments and other heritage sites. A financial restoration bond for BMV land will be required if the project proceeds, in order to meet NPS EN-1 sustainability obligations.

PEIR Analysis by Subject Area

KSCA has reviewed the PEIR documents to the best of its ability. In addition to the sheer volume of material presented, the way in which information has been provided makes it extremely difficult for members of the public to engage meaningfully. While the documents are available as individual searchable PDFs, the structure and labelling are inconsistent and confusing. It is often impossible to locate a specific reference within a lengthy PEIR document, and key information is buried under titles that give no clear indication of their contents. It is also not possible to download the PEIR as a whole, and hundreds of documents – often of a single page – must be downloaded individually. There is no reason a more accessible format for disseminating this information could not have been used.

Compounding this, the documentation has been altered during the consultation period without adequate notice. A clear example is the Agricultural Land Classification (ALC) material. At the start of the consultation, only a preliminary ALC map was available. A more detailed ALC map was later added, and when this was queried — including errors in the key — three documents appeared as replacements: *PEIR Volume 4 Appendix 10.2 Agricultural Land Classification Report Part 1, Part 2,* and *Part 3.* These contained additional information but were not clearly flagged as new or updated material. This consistent pattern of weak underlying empirical evidence has substantially compromised the potential for any meaningful consultation with local communities to be conducted

The PEIR documents have also been made available in full at the Black Bull in Balsham, where we were told that they included further information. However, it was practically impossible to determine what was new, what had changed or where to find relevant sections. This lack of transparency and clarity makes genuine participation almost impossible for local residents who are not specialists in planning or environmental assessment.

The following section reviews by KSCA are presented in no particular order and therefore are equally weighted and require full consideration by Kingsway Solar.

Physical Components and Associated Risks Analysis

Overview

This review covers all relevant sections of the PEIR addressing the design and environmental implications of the Kingsway Solar project. Reviewed documents include Volume 1, Chapters 3 and 4 (scheme design and alternatives); Volume 2, Chapters 6, 7 and 12 (biodiversity, landscape and noise); and key figures and appendices in Volume 4. Direct correspondence with Kingsway Solar was also considered.

Physical Components

- **Solar Panels (PV Arrays):** Ground-mounted, south-facing fixed-tilt panels up to 4.2 m high are proposed across three Land Parcels (A, B and C) of the 1,246 ha site. Each panel measures approximately 2.5 m × 1.5 m with an estimated output of 710 Wp, suggesting a total of over 700,000 panels (PEIR Volume 1 Chapter 3, Table 3.1). Arrays will be mounted on steel frames 0.5–1.5 m above ground, spaced 3–5 m apart. The frames would be supported by aluminium poles driven 1.5-3 m into the ground. In some cases they would be mounted on concrete plinths to avoid ground disturbance (e.g. archaeologically sensitive sites). However, there is no information provided on the materials used to manufacture the solar panels or their place of production. This information is essential to assess their sustainability, recyclability, overall carbon impact and implications for human welfare

- **Inverters:** There will be up to 250 inverters. Each inverter would be housed within a standard 20-foot shipping container, measuring approximately 6 metres in length, 2.9 metres in height and 2.5 metres in width (PEIR Volume 1 Chapter 3, Table 3.1).

- **Substations:** Each development area will contain a substation. Substations in Parcels A and C will transform electricity to 132 kV, while the substation in Parcel B will step up to 400 kV for export to Burwell South (PEIR Volume 1, Chapter 3. 3.6.1). The Parcel C substation compound, approximately 60 m × 60 m and up to 15 m high, lies close to existing recreational facilities, yet no assessment of proximity effects or mitigation for this community amenity has been provided.

- **Battery Energy Storage System (BESS):** The BESS will be located within or adjacent to the Area B substation compound. It will include about 300 modular containers (12.5 m × 3 m × 4 m each), providing 3–7 MWh per unit and approximately 1,500 MWh in total (PEIR Volume 1, Chapter 3, 3.4.15). Depending on storage duration (4–6 hours), this equates to 250–375 MW output capability. This would require a high density of units, with an increased fire risk and associated firewater management issue. While the PEIR references impermeable drainage and automatic valve systems to contain *“firewater”* (PEIR Vo1, Chapter 3, 3.4.17), these remain conceptual and untested (see section on *BESS Analysis*).

- **Overhead Line (OHL) and Pylons:** A 400 kV overhead line supported by steel lattice pylons up to 65 m high will connect the site to Burwell South substation. The route, approximately 15 km long, remains undefined and will be refined at a later

stage (PEIR Volume 1, Chapter 3, 3.6). This uncertainty prevents accurate assessment of effects on landscape, noise, ecology and heritage.

- **Inter-Array Connection Corridors:** Two inter-parcel corridors will connect the main Land Parcels (PEIR Volume 1, Chapter 3, 3.2.2-3). The corridor between Land Parcels A and B is shown only as a broad, undefined zone, crossing the Fleam Dyke path, a Scheduled Monument and SSSI, posing significant risks to archaeology, chalk grassland habitats and public access. No routing, constraints mapping or mitigation measures are provided. The connection between Land Parcels C and B is not specifically mentioned, but will likely cross Six Mile Bottom Road where the Land Parcels meet. Both corridors could add to the scheme's visual and ecological footprint. In addition there will be other inter-array connections, a most notable example being on the eastern end of Parcel C in Weston Colville, where the proposed route was not made known to the land owner prior to the consultation.

- **Fencing:** Security fencing will enclose all infrastructure areas, including perimeter fencing, onsite-substations and BESS compounds (PEIR Volume 1 Chapter 3, Table 3.1). The design and materials are not finalised and no specific provision for wildlife passage is described, risking habitat fragmentation and removal of existing wildlife corridors. From correspondence with Kingway Solar we have learnt that:

  > *"At this stage we do not have detailed proposals for where the fencing on the site would be located. We will be fencing areas proposed for solar PV panels, rather than encompassing the entire area within a single fence line. This would allow for movement across the site, rather than requiring animals to go around the site. As part of our DCO application, we will submit more details about our proposed approach to fencing."*

- **Lighting and CCTV Infrastructure:** The PEIR lacks an Outline Lighting Strategy and provides no technical details on CCTV installation. Security cameras up to 5 m high and lighting (potentially infrared or motion-activated) are proposed to operate continuously (PEIR Volume 1, Chapter3, Table 3.1), yet no data are provided on beam angles, colour temperature or illumination spread. Without this information, it is impossible to assess light spill, visual intrusion or compliance with the Institution of Lighting Professionals (ILP) Guidance for the Reduction of Obtrusive Light (2021). These omissions are critical given the site's proximity to sensitive habitats and dark-sky rural areas.

Risks and Weaknesses

Uncertainty in Design and Location

The PEIR applies the Rochdale Envelope approach (PEIR Volume 1, Chapter 3) meaning key components such as PV layouts, corridor alignments and pylon locations remain undefined. This prevents definitive assessment of visual, ecological and construction impacts, leaving consultees, including members of the public, unable to judge real-world effects at this important consultation stage (see section on *Rochdale Envelope Analysis*).

Landscape and Visual Harm

Kingsway acknowledges that some visual and landscape impacts will be *“significant”* and *“cannot be fully mitigated”* (see section on *Visual impact Analysis)*. For example, arrays on exposed slopes in Land Parcel B will be difficult or impossible to screen and will be visible from the Icknield Way and Fleam Dyke, with negative impacts on PRoW users (see section on *PRoW Analysis*)

Fire and Public Safety (BESS)

The BESS presents significant fire, explosion and groundwater contamination risks, yet the Outline Battery Safety Management Plan (oBSMP)—along with the Drainage Strategy and Flood Risk Assessment—has been deferred until the DCO submission. This omission leaves critical issues such as emergency response, firewater containment and public safety untested. Given the proposed BESS’s unprecedented scale and its location within a highly sensitive groundwater protection area, the absence of detailed design and risk mitigation information prevents proper evaluation of its safety and environmental implications (see section on *BESS Analysis*).

Environmental Contamination (BESS)

If a fire occurs, contaminated firewater could infiltrate the Principal Aquifer or nearby Source Protection Zones (SPZ 1 and 2), posing a severe risk to public water supplies. The PEIR’s drainage description remains highly conceptual, with no modelling, containment design, or evidence of capacity to manage a combined BESS fire and flood event. This omission directly links to the broader groundwater concerns outlined in the section titled *BESS Analysis*, demonstrating that Kingsway Solar has provided no credible assurance that toxic runoff could be contained or prevented from reaching sensitive groundwater receptors.

Wildlife and Ecology Risks

Fencing may block movement of mammals and lighting could disturb bats, yet the PEIR provides no evidence that features such as badger gates, small-mammal gaps, or bat flight corridors will be included, despite known activity across the site. Furthermore, the proposed panel areas overlap with habitat used by skylark, lapwing and brown hare, meaning large areas of open farmland will be lost, displacing these species. Combined with potential light disturbance to bats, the absence of detailed mitigation measures leaves significant unaddressed risks to local biodiversity.

Cumulative Lighting and Visual Impacts

The PEIR fails to assess cumulative night-time lighting, CCTV illumination and reflective glare from panels alongside permanent light sources at BESS compounds, substations and pylons. The omission prevents evaluation of combined visual and ecological effects with no requirements to protect dark and tranquil landscapes.

Inconsistent Design Principles

Panels appear to have been placed near some homes but not others, with no consistent rationale. Some designated *“solar PV development areas”* contain no panels or ‘indicative ecological and landscape enhancements’ in the current layouts, creating uncertainty about future use and potential expansion (see section on *BMV and Soil Assessment Analysis*). The transmission entry capacity register (NESO) shows an additional 200 MW for Rat Hall Solar (assigned to DRD LLP).

> From recent correspondence with Kingway Solar, we note:
>
> “*The initial scheme design has been presented as part of this consultation. We will take time to consider and have regard to all the feedback received to the consultation when making further refinements to our proposed design and developing our planned mitigation measures. The reference to ‘flexibility for future design evolution’ refers to the ability to make changes to the scheme design within the development areas (Land Parcels A, B and C) in response to consultation feedback and our ongoing technical and environmental assessments.”*

It is unclear how residents can be expected to provide meaningful feedback or trust that their views will be genuinely considered when Kingsway Solar has not clearly defined the proposal and its final scale and scope. This lack of clarity undermines transparency and denies the community a fair opportunity to engage in the process.

What KSCA Asks from Kingsway Solar

- Residents cannot provide meaningful feedback while key infrastructure locations and designs remain indicative. Any post-consultation design changes could significantly alter impacts and would require further, targeted consultation to ensure fairness.
- A full **Battery Safety Management Plan,** including thermal runaway analysis, emergency drainage and firewater containment design and coordination with local fire and rescue services—**must not deferred**. Without this, public safety and groundwater protection cannot be assured. **We expect the BESS to be subject to hazardous substances consent**.
- **Lighting and fencing strategies** must be published prior to consent and demonstrate clear ecological safeguards to protect wildlife corridors and nocturnal species (see *Biodiversity Analysis* section).
- Finally, **panel placement and land-use decisions** must be applied consistently and transparently, with clear justification for the inclusion or exclusion of specific areas.

Battery Energy Storage System (BESS) Analysis

Overview

KSCA has reviewed all relevant PEIR sections on flood risk, groundwater and fire safety, including Volumes 1–4 and consultation responses from the Environment Agency (EA) and Cambridgeshire Fire and Rescue Service (FRS).

Risk of BESS Fire to Groundwater

Kingsway Solar should drop their plans for including a Battery Energy Storage System (BESS) as part of their development, recognising that:

- The entire area of Kingsway Solar farm is unsuitable for BESS due to its high sensitivity to groundwater contamination from firewater that must be used in the event of an unlikely but possible BESS fire.
- It will not be possible to put in place mitigation measures that can for the entire lifetime of the solar farm be guaranteed to contain absolutely all the contaminated firewater that will be needed in the event of a BESS fire.

Location and Scale of the BESS

The entire site overlies a Principal Aquifer (White Chalk Subgroup) and a superficial Secondary Aquifer. Parts of the site, including the Grid Connection Corridor, lie within Source Protection Zones (SPZ) 1 and 2 (Volume 3 Fig 2.9), the most sensitive designations for groundwater protection. The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 require strict protection and non-deterioration of groundwater quality. Any activity within SPZ 1 or 2 carries an exceptionally high burden of proof.

Information in the PIER documents and direct discussion with David Vernon have confirmed that all BESS units will be contained in a single compound located in the development's area B, approximately at location ///alerting.firewall.nests. The PEIR states this compound will contain up to 300 shipping container-style enclosures[5], each measuring approximately 12.5 m by 3 m and housing batteries with capacities between 3 MWh and 7 MWh. This equates to a total storage capacity of up to 2.1 GWh, around four times greater than the largest operational BESS currently in service anywhere in Europe.

Kingsway Solar's current plan for the solar farm, as shown in Table 3.1 of PEIR Volume 1 Chapter 3, is for a compound measuring 220 m x 150 m. If Kingsway Solar intends to follow recommendations for spacing the containers adequately and avoiding stacking them to mitigate the effects of a BESS fire[3] then this compound area is not large enough to contain the proposed 300 units. Either Kingsway Solar intends to ignore the FRS recommendations or has not credibly completed even the base-level design planning for their BESS, both of which are concerning at this Statutory Consultation stage of their project. This, alongside

[5] The scoping EIA feedback from Cambridgeshire Fire and Rescue Service (FRS) recommends the use of cabinet-style units rather than the older shipping container design, and requests that they are given information about details of the design as early as possible.

other omissions, represents a consistent failing of due diligence by the applicant – in this case concerning one of the fundamental aspects of their design.

Lack of Design Detail

There is very little technical detail about the proposed BESS in Kingsway Solar's PEIR documents; however what is there indicates that Kingsway do not fully understand the importance of the Source Protection Zones (SPZs) in protecting the public water supply and further that they are not intending to follow the Environment Agency's recommendations with regard to the SPZs. For example, the Environment Agency's scoping EIA comments[6] recommend that:

> "*Any BESS compound(s) should furthermore be preferentially sited away from sensitive controlled water receptors, including areas of high groundwater vulnerability. … We urge the applicant to position the BESS away from SPZ1 and SPZ2*".

In contradiction to this guidance, the chosen location for Kingsway's BESS compound is in an SPZ2 area and just 200 m from an SPZ1 area. This can be seen clearly in the following Figure BESS 1 that superimposes details from Kingsway's interactive map, an ordinance survey map and the SPZ areas from Kingsway's PEIR Volume 3, Figure 2.9[7]. In this figure even the region without colour is an SPZ3, so it remains well within the overall drinking water catchment area.

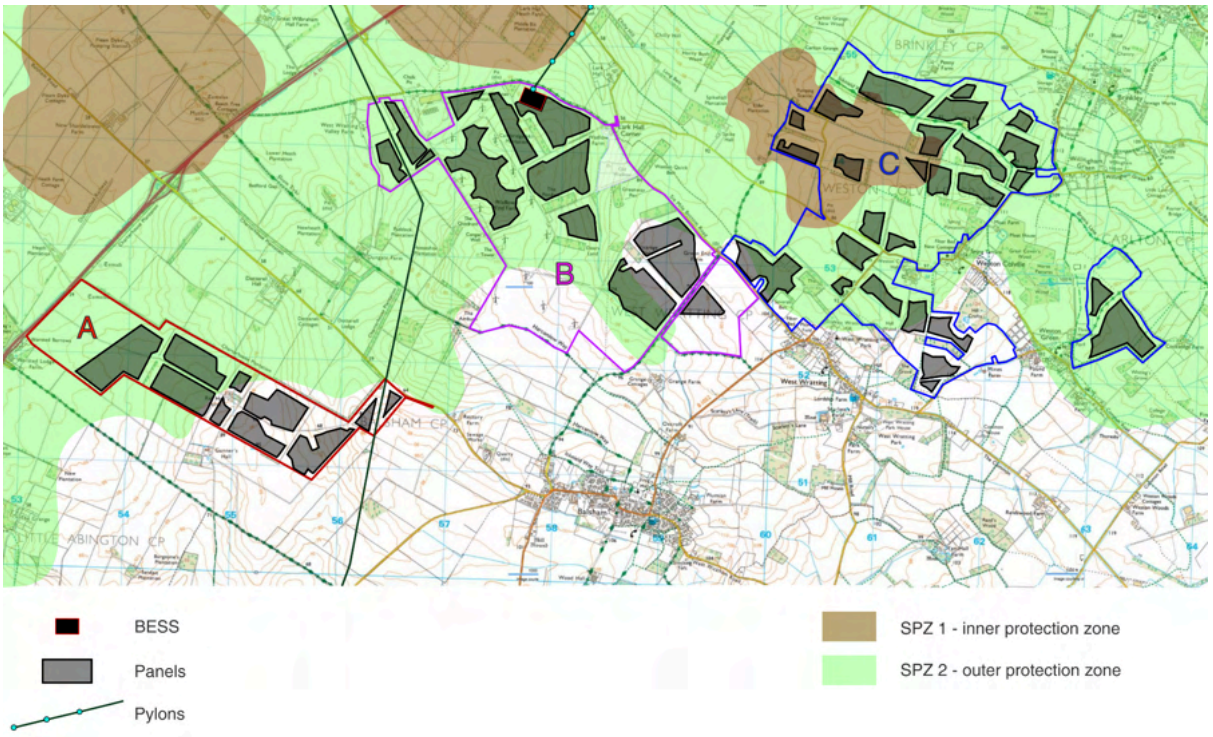

Figure BESS 1: SPZ areas

The choice of location for the solar farm infrastructure, particularly the BESS, similarly contradicts the text in Kingsway's own Non-Technical Summary document which states that:

[6] See appendix of the Planning Inspectorate scoping EIA opinion.
[7] Figure 2.9 in the PEIR is unclear because it tries to combine too much information. The SPZ areas have been checked against the British Geological Survey online map system, Geo-Index.

"Where possible, the design locates permanent infrastructure away from sensitive SPZs and groundwater bores". As you can see, most of the development is on an SPZ2 area and the BESS compound is just 200 m from a most sensitive SPZ1 area.

It is extremely disappointing that Kingsway Solar have chosen to delay publishing several key documents: the Outline Drainage Strategy (Section 2.7.37 in Kingsway's EIA scoping report) and the Outline Battery Safety Management Plan (oBSMP) (Section 2.7.19), until the DCO application is submitted. This crucial deficit has undermined meaningful public consultation and denied statutory consultees and the general public the opportunity to scrutinise how Kingsway Solar propose to reduce the risk to human health to an acceptable level, and to give their feedback on those proposals.

Suitability of the Development Area for BESS

Kingsway Solar can be in no doubt about the high sensitivity of groundwater resources within the developable areas. This is highlighted in the scoping EIA response (https://nsip-documents.planninginspectorate.gov.uk/published-documents/EN010165-000025-EN010165%20-%20Kingsway%20Solar%20-%20Scoping%20Opinion.pdf) from the Planning Inspectorate (PI), which in several places directs Kingsway Solar to scoping EIA comments from the Environment Agency (EA) about the *"water stressed"* character of the area and the *"high groundwater vulnerability"*. In their PEIR documents Kingsway Solar explicitly acknowledge that the development area is above a principal aquifer, and is either in a public drinking water supply Source Protection Zone (SPZ) 2 or even, in some places, SPZ 1 (PEIR Volume 3, Figure 2.9). They have acknowledged that there is groundwater vulnerability from accidental spillages during construction, and have noted comments from the National Fire Chiefs Council (NFCC) and local FRS that there are serious hazards from the toxic contamination in BESS firewater runoff. But despite these acknowledgements, Kingsway Solar does not seem to understand the significance of the Source Protection Zones.

If contaminated firewater enters the highly permeable aquifer, the toxic and carcinogenic compounds it contains rapidly infiltrate the drinking water supply. Because that contamination is persistent and cannot be removed by water utility treatment, such a large-scale incident would most certainly create an environmental and human health disaster affecting hundreds of thousands people in Cambridgeshire. Estimates vary depending on details of the hydrogeologist's calculations, but a figure of more than 350,000 people would be a conservative estimate

Because the impact of contamination from BESS firewater would be so high, extensive and prolonged, a risk analysis would have to conclude that there is *significant risk to human health* despite the low likelihood of a BESS fire occurring.

A sensible holistic plan would consequently determine that such a risk should most certainly be averted by not building a BESS in this area. It is not absolutely necessary for battery systems to be built alongside renewable energy sources; they can be built as standalone facilities that operate independently by charging from and discharging to the national grid. Kingsway Solar has, however, made a strategic decision to lower their costs and maximise profits by pushing on with a co-located BESS and trying to mitigate the risks to an

acceptable level. Kingsway Solar's PEIR documents propose this can be done by engineering a drainage system that captures the contaminated fire water.

Inadequacy of the Proposed Mitigation

As identified by several statutory consultees the mitigation required to reduce the risk to human health to acceptable levels is absolute containment of all firewater runoff. Because removal of contaminated firewater by tankers during an active BESS fire would be impractical and highly unsafe[8], the firewater containment vessel(s) must be *in-situ* and with a capacity that is able to contain the volume of firewater that must be used to cope with the incident..

The Environment Agency is very clear in their scoping EIA comments that Kingsway Solar must build a drainage system that ensures *absolute* containment of *all* contaminated firewater:

> *"There must be a sealed drainage system adequate to contain and manage any fire-fighting effluent or contaminated surface waters generated by a fire on the site to ensure no discharge of polluted water to ground or surface waters bodies."* [our underlining]

They also say that any system for the storage of contaminated firewater should have sufficient capacity/headroom for the volumes expected in the event of a fire, even during periods of intense rainfall. In particular:

> *"Confirmation is requested that the BESS flood protection systems and proposed fire-water containment system would be sufficient to prevent impacts on groundwater quality in the reasonable worst-case event of a combined flood event and catastrophic BESS fire."*

Since the same document highlights the need to consider the impacts of an "*upper climate change scenario*" when considering flood risk, then it is logical to expect the capacity of contaminated firewater storage to also have to be sufficient to cope with that expected increase in extreme weather event rainfall and flooding caused by climate change.

In addition to having a containment vessel for used firewater the BESS compound must have a supply of water available for firefighting to take place. Because the required volume of water will be much more than is carried by a fire appliance (~2,000 litres each), there must be an on-site supply. In their scoping EIA comments Cambridgeshire FRS recommended that a static supply of 180,000 litres (~1/10 volume of olympic swimming pool) would be needed to cope with a 2-hour incident. (Kingsway Solar have indicated an onsite storage capacity of around 240,000 litres will be provided (PEIR Vol 1 Ch 3, Table 3.1 and para 3.8.4)). This duration seems short in comparison with reports that other BESS fires have taken many hours and sometimes days to bring under control and that volume seems extraordinarily low in comparison with the estimates of more than 5,000,000 litres of water (2 olympic swimming pools) that were used for those previous fires. There will, no doubt, be lots of debate about the capacity of firewater needed and hence the volume required for

[8] Demonstrated in previous planning applications and appeals.

containment of the used firewater, particularly with the latter having to cope with a combined BESS fire and future-proofed flood levels; however, because the development area is extremely sensitive to groundwater contamination the planned capacities must err on the side of extreme caution.

In their letter of 9th October 2025 to North Kesteven District Council[9] the UK Health Security Agency (Environmental Hazards and Emergencies Department) expressed their concern about a BESS that is proposed on land underlain by the Lincolnshire Limestone Aquifer. They say:

> *We would ask the planning regulator is satisfied (sic) whether the proposed [300,000 litres] firewater lagoon capacity is sufficient to contain the combined volume of fire suppression water and a severe rainfall event. The failure to contain this water would lead to the release of highly toxic firewater runoff (containing heavy metals and corrosive acids) into the aquifer, posing potential contamination risk to land and groundwater, the public water supply and environmental health.*

In reality and practice no BESS planning application has yet been able to substantiate that it can reliably estimate how much firewater will be required and none have provided *in-situ* firewater containment volumes anywhere close to what has been needed to cope with previous BESS fires.

The uncertainty in required volume of firewater supply and containment is made even worse by not knowing how many BESS containers could become involved in a BESS fire. The only possible way to plan for avoiding catastrophic consequences from a BESS fire at the Kingsway Solar site would be to put in place multiple layers of mitigation so that:

- The number of BESS containers that could catch fire can be guaranteed to be less than some pre-determined number.
- The worst-case volume of firewater required to deal with that number of containers and to prevent it escalating must be guaranteed to be available.
- The drainage system and containment must be guaranteed to be able to cope with that volume of firewater with 100% efficacy and this must be true for the entire life of the BESS.

These multiple-levels of requirement mean that the viability of a firewater containment strategy is highly questionable.

Because there is no engineering certainty that the risk to human health from groundwater contamination can be prevented by a firewater containment strategy the only sensible route forward is for the applicant to drop the BESS part of their development or perhaps build it elsewhere in a more suitable location.

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[9] See post by Dr Caroline Johnson, MP for Sleaford and North Hykeham, https://www.facebook.com/drcarolinejohnson/posts/the-attached-letter-from-the-uk-health-security-agency-ukhsa-has-been-published-/1220086826611572/

Evidence of BESS Hazard and Risk

We include two sources of evidence of risk from BESS which are provided in Appendix B. The first is a detailed report from Alan Smith on the Orsted BESS fire in Liverpool, 2020. The second is the advice from North Yorkshire Fire & Rescue Service (NYFRS) on the requirements for BESS.

What KSCA Asks from Kingsway Solar

If Kingsway Solar continues with their plans to include a BESS in the development they must:

- **Design the BESS facility** and use battery management technology and procedures so they can guarantee that a fire starting in a one BESS container will be isolated to that one unit so that their plans and resources for fire containment will be adequate. At the examination stage Kingsway Solar will have to convince the ExA that this requirement will be achieved.

- **Build and maintain** the infrastructure needed to supply a sufficient volume and flow rate of firewater so that attending Fire and Rescue Services (FRS) will be able to contain the fire to a single BESS container. This preparation must be informed by recommendations from the local FRS, the Fire Chiefs Council, NFPA 855 standard, etc. At the examination stage Kingsway Solar will have to persuade the ExA that this requirement will be achieved and can be guaranteed throughout the 40 year life of the solar farm.

- **Build and maintain** a drainage system that can be guaranteed to absolutely capture and contain all the firewater that would be needed to deal with fire in a single BESS container. This requirement was spelt out in detail by the Environment Agency (EA) in their scoping Environmental Impact Assessment (scoping EIA) comments and is referred to by other statutory consultees. In particular, the EA says that any system for the storage of contaminated firewater should have sufficient capacity/headroom for the volumes expected in the event of a fire, even during periods of intense rainfall. An additional concern of particular relevance to the design of the Kingsway site, and toward which too little attention has been paid throughout the consultation process, is the impact of changes in the underlying heavy clay soil on the attendant infrastructure (for example when the soil dries out and cracks but also during flooding). At the examination stage Kingsway Solar will have to convince the ExA that all of the capture requirements will be achieved and can be guaranteed throughout the 40 year life of the solar farm, during which time periods of intense rainfall and drought are expected to increase due to climate change.

- **Kingsway Solar should pay** for regular training of local FRS so that they are prepared to deal with the exceptionally challenging conditions of a BESS fire; it should not be left to the taxpayer to foot this bill.

KSCA Assessment and Position

KSCA concludes that the inclusion of a BESS at this location poses an unacceptable and unmitigated risk to public water supplies and should be either removed from the proposal or

relocated to a more appropriate site. We also conclude that in this section, as elsewhere in the PEIR, there is insufficient information provided to achieve the level of careful scrutiny required for such a large and potentially hazardous industrial facility, especially in such a strategically important and environmentally sensitive location.

Biodiversity and Wildlife Analysis

Overview

The Kingsway Solar proposal lies close to multiple sensitive ecological receptors, including Fenland SAC, Eversden and Wimpole Woods SAC, Wicken Fen and Chippenham Fen Ramsar sites, several SSSIs and County Wildlife Sites (CWS). Priority habitats and ancient woodland also occur in the wider landscape. The Cambridgeshire Local Nature Recovery Strategy (LNRS) identifies these areas and other local features like grassland, woodland and waterways as priorities for enhancement and connectivity, supporting species like the brown hare, badger and potentially the barbastelle bat.[10]

A Preliminary Ecological Appraisal (PEA) (Volume 4, Appendix 6.2, Baseline Data Part 1) has been completed, but coverage is incomplete. For example, surveys for badgers cover the main development area, but not the Grid Connection Corridor; breeding and wintering bird surveys cover only Land Parcels A and B. Although PEIR Volume 2, Chapter 6 states that bat activity surveys *"were undertaken in Developable Area A and B between April 2024 and October 2024"*, the results are withheld. Brown hares have been scoped out, though some sightings are recorded.

This pattern of partial and deferred assessment undermines confidence in the ecological baseline.

Species-Specific Findings

Badger

The PEA undertaken by RSK Biocensus recorded 89 badger sett observations across all PV areas. PEIR Volume 2, Chapter 6 asserts that all main setts are located over 50 m from construction areas/infrastructure and only disused outlier setts lie within 30 m of infrastructure. However, maps in Volume 4 (Appendix 6.2 Parts 3 and 4) suggest these claims are questionable.

Field evidence (see Figure B&WA 1) shows at least one active sett group within 25 m of proposed solar panel locations. Construction activities will require working space beyond panel footprints, placing additional setts at risk.

The PEA recommends that fencing include a 300 mm gap to allow wildlife passage, but this has not been incorporated into Chapter 6 or the design. Without transparent mapping and an accessible mitigation plan, the scheme risks non-compliance with the Protection of Badgers Act 1992.

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[10] Local Nature Recovery Strategy for Cambridgeshire and Peterborough. Available from: https://yourvoice.cambridgeshire.gov.uk/lnrs/consultation/supporting_documents/SD7%20%20National%20and%20Local%20Context.pdf (accessed October 2025)

Figure B&WA 1: Information from Appendix E, Table 7 of Volume 4 Appendix 6.2 Baseline Data Part1 reads:

54: 7-entrance sett with fresh bedding and badger hairs
55: Single north facing sett entrance
56: 3-entrance sett with north facing entrances, partially collapsed entrances
57: A number of collapsed entrances with one freshly excavated north facing with hairs found

Brown Hare

No dedicated survey was undertaken for brown hares (hare) and these were scoped out of detailed assessment despite regular observations of groups exceeding 30 individuals. The PEIR argues that habitat creation will "benefit" this species, stating "*the extent of land take will be far exceeded by habitat creation and enhancement which will benefit these species.*" (referring to hare and hedgehog); this is unconvincing, as fencing and habitat loss will severely reduce their range. The current density of hares on the land suggests that any habitat 'enhancement' (over a small proportion of land) will be of no benefit to hares. Woodland creation offers no benefit to hares and there is no assessment of fencing impacts on their movement.

Deer and Red Fox

No references are made to deer or foxes in PEIR Volume 2, Chapter 6 or the PEA. This is probably because deer are only mentioned twice in the Planning Inspectorate Scoping Opinion[11] (mentioned in responses to the EIA Scoping Report from Carlton-cum-Willingham Parish Council and in National Grid's reference to 'deer fencing') and **red fox** not at all. This is despite records of **fallow, roe and muntjac deer** and **red fox** throughout the developable area (as evidenced by iRecord data; Figure B&WA 2).

These omissions are significant, given the likelihood of construction disturbance and the barrier effects of fencing on their free movement across the landscape and must be taken into account to ensure that biodiversity is maintained or enhanced.

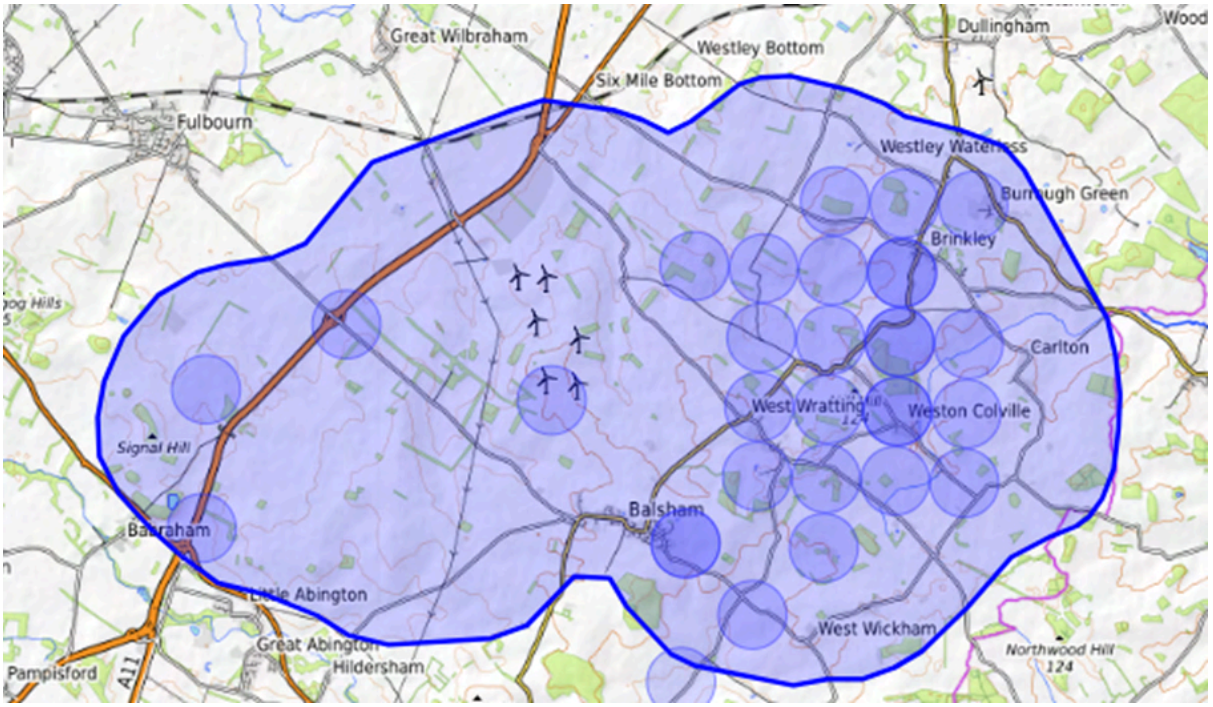


Figure B&WA 2.Distribution of deer on iRecord using data from the KSCA Step into Nature Campaign

Bats

Bats are reported as using foraging and commuting routes across the site, but no bat data are published. Although PEIR Volume 2, Chapter 6 states that *"Activity surveys were undertaken in Developable Area A and B between April 2024 and October 2024 consisting of the deployment of static detectors in representative habitats across Areas A and B and nighttime bat walkovers."*, there are no data or reference to these in the PEA (PEIR Volume 4 Appendix 6.2 Baseline Data Part1).

[11] Planning Inspectorate. 'Scoping Opinion:Proposed Kingsway Solar Farm, Case Reference: EN010165 23.' January 2025. Accessed October 17, 2025 https://nsip-documents.planninginspectorate.gov.uk/published-documents/EN010165-000025-EN010165%20-%20Kingsway%20Solar%20-%20Scoping%20Opinion.pdf

Volume 2, Chapter 6 states that *"results will be presented within the ES"* , but there is no indication of why they have been held back at this stage. Nevertheless, in Table 6.7 it states that *"Preliminary analysis of bat surveys undertaken in 2024 highlighted the following species using Developable Areas A and B:* ***common and soprano pipistrelle, myotis species, serotine, Leisler's bat Nyctalus leiseri, noctule N. noctula, brown longeared bat and western barbastelle****."* The western barbastelle is a 'near threatened' species according to the IUCN Red List and is also listed in the Habitats Directive Annex II. In the absence of Kingsway Solar data, iRecord and Cambridge Bat Group data are presented in Figure B&WA 3.

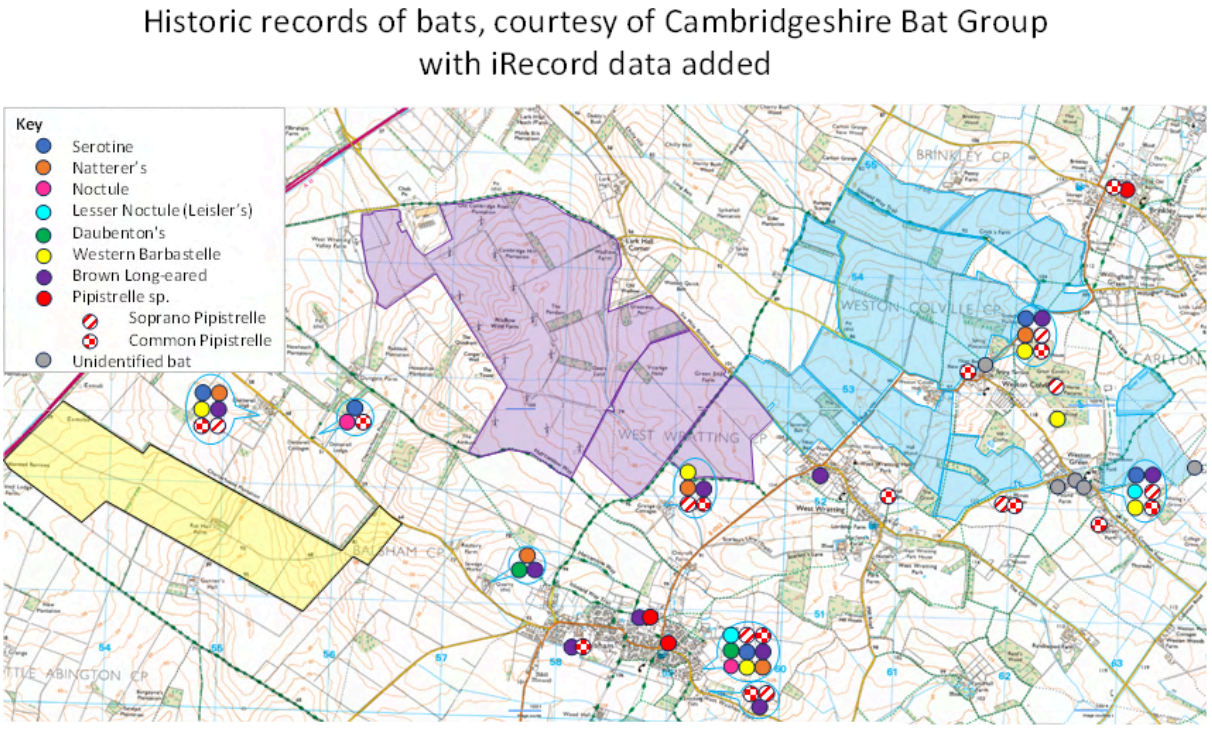


Figure B&WA 3

In paragraph 6.6.40 of PEIR Volume 2 Chapter 6, reference is made to "recent research by Szabadi et al. (2024), Tinsley et al. (2024) and Barre et al. (2024)". However, the way this information is presented is selective and biased. For example:

- Whereas Chapter 6 reports *"potential reductions in activity of some bat species"*, Tinsley et al actually state that: *"The activity of six of eight species/species groups analysed was negatively affected by solar PV panels"*
- Chapter 6 states that *"discrepancies in baseline data collection methods and limited detail regarding the solar farm sample sites introduce uncertainty into the strength and applicability of these findings"*, whereas the most significant distinction between this research and the Kingsway Solar proposal is the area covered, and it is difficult to argue that the much larger area of Kingsway could result in less of an effect.
- Chapter 6 states that *"the studies suggest that bat activity may be supported through avoidance of homogenous site design and the incorporation of features such as high-floristic-diversity habitats, enhanced hedgerow and treeline networks and woodland connectivity"*. While this suggests that this conclusion is based on research

and data, it is in fact just a suggestion made by the authors. For example, Barre et al preface their advice with *"As the exact mechanisms triggering the effects we documented remain unknown, reduction levers seem to be limited, and efforts should thus be made firstly, to avoid using sites with the greatest feeding potential for bats as solar farms, and secondly, to offset the residual effects by improving the carrying capacity of the food web within and around solar farms development projects".*

No reference is made to recent post-construction surveys at the Llanwern Solar Plant[12], which three years after completion, recorded a marked decline in bat abundance within the solar array fields; these findings are consistent with those of Tinsley et al. (2024). When this period is combined with the anticipated 2–3 years of construction at Kingsway, significant reductions in bat activity can reasonably be expected to persist for at least five to six years.

Ground Nesting and Wintering Birds

Species such as **skylark, corn bunting, lapwing** and **grey partridge** are all **Red-Listed** (BoCC 2021). **Quail**, also ground nesting, are Amber-Listed according to the BoCC and are listed on Schedule 1 of The Wildlife and Countryside Act 1981. Of these, only skylark is mentioned in the PEA.

The **breeding populations of skylark, corn bunting and grey partridge have been identified as being of County level importance** in the breeding bird survey (Appendix 6.2 Baseline Data Part 6) and **lapwing as of local level importance** (although only for Land Parcels A and B; no data on Land Parcel C).

For wintering birds (Appendix 6.2 Baseline Data Part 7), **skylark and corn bunting are listed as being of County importance**, whereas lapwing and grey partridge are not listed (again no data on Land Parcel C).

With regard to impact of the proposed development in the breeding season, Chapter 6 states that *"Provision of suitable habitat for skylark and other ground nesting birds is intended to be embedded into detailed design, potentially reducing effects on ground nesting species to a level that is not significant."*

The logic behind this conclusion is unclear. Skylarks, in particular, are distributed across the entire site, so it is not evident where any *"additional suitable habitat"* could be provided during the breeding season. Given that their existing habitat will be substantially reduced, it is implausible to claim that "*no effects are anticipated outside the breeding season."*

Although paragraph 5.6.2 of the Wintering Bird Survey states *"Arable fields covering the majority of the site and survey area were used by a range of notable species including lapwing, golden plover, starling, redwing, fieldfare, skylark, corn bunting, grey partridge and gull species"*, Chapter 6 further claims that *"No effects are anticipated outside the breeding season"* (PEIR Volume 2, 6.2.26).

[12] GE Consulting Services (UK) Ltd. 'Llanwern Solar, Gwent Levels. Ecological Monitoring Review - Year 3.' January 2024. Ref: 0419-EMR-KN Accessed October 17, 2025, https://documents.newport.gov.uk/PublicAccess_Live/Document/ViewDocument?id=D29C6E4DBEDA4F34A783295DF850062E

Ultimately the report admits that *"there is the potential for significant adverse residual effects"* on skylark (PEIR Volume 2, 6.8.1), but attempts to soften this by saying that other land management changes will *"result in a residual beneficial effect, significant at the local level for other ecological receptors."*

This PEIR assessment also overlooks the fundamental ecological change resulting from the conversion of arable cropland to permanent pasture beneath and between solar panels. Many priority farmland species, particularly skylark, lapwing, yellow wagtail and corn bunting, are strongly associated with open arable landscapes, where they rely on bare ground, low vegetation structure and rotational cultivation for foraging and nesting. The shift to sheep-grazed grassland will replace these dynamic arable habitats with short, homogeneous swards offering few opportunities for nesting or invertebrate foraging (see also section on *BNG and Soil Assessment Analysis*).

The report continues to look at cumulative effects – that is, the overall effect of Kingsway plus neighbouring developments. It is concerning that so far as the Sunnica large-scale solar facility (DCO approved July 2024) is concerned, the Kingsway PEIR claims that *"Effects are largely temporary. Overall impact beneficial with mitigation and BNG – no potential for likely significant adverse effects."* and nine other smaller developments within 1 km are discounted individually, with *"Unlikely to result in a significant cumulative effect due to provided mitigation and potential for BNG."* and no apparent attempt to look at the combined effect.

Ultimately, it looks as if ground nesting birds are being sacrificed in favour of other species.

Turtle Dove

Turtle doves are mentioned in passing: *"Species of particular importance within the site include corn bunting, grey partridge, peregrine, skylark, turtle dove, linnet and yellowhammer, with additional locally important species including barn owl, lapwing, quail and red kite." (*PEIR Volume 2, 6.6.26). Turtle doves are **Red-Listed** according to BoCC, are a Priority Species under the UK Post-2010 Biodiversity Framework and are listed as Vulnerable on the global IUCN Red List of Threatened Species.

Volume 4, Appendix 6.2 (Baseline Data Part 7) reports a pair of nesting turtle doves within Land Parcel A, supported by a map, data table and photographic evidence. Comparison with the Land Parcel A map in the *Kingsway Solar Stage Two Consultation* booklet shows that the copse containing the nest would be entirely surrounded by solar panels. This configuration would almost certainly lead to disturbance and the displacement of this vulnerable species, directly undermining conservation objectives for turtle doves.

Specific conservation measures are required for this species (see Operation Turtle Dove[13]) and should be explicitly incorporated into the Environmental Statement (ES). However, given the scale of construction disturbance and the permanent alteration of the surrounding environment, it is highly likely that the nesting turtle doves would be displaced from the area altogether.

[13] Operation Turtle Dove in partnership with the RSPB, Pensthorpe Conservation Trust and Natural England. Accessed October 17, 2025https://www.operationturtledove.org/

RSBP Survey: KSCA Asks the Authors

A recent study titled, *Solar farm management influences breeding bird responses in an arable-dominated landscape*,[14] examined how different solar farm management styles impact bird populations in the East Anglian Fens.

Their results highlight the potential of well-managed solar farms to enhance biodiversity in agricultural landscapes—solar farms with mixed habitats hosted significantly more birds (31.5 per 4 ha) compared to those with simple habitats (17 per 4 ha) or arable land (11.9 per 4 ha). However, even with well-managed solar farms, it is not good news for all species. For example, while wood pigeons favoured solar farms, skylarks were more common on arable land. This isn't surprising, as skylarks need long, open sightlines—something solar farms cannot provide.

Studies such as Montag et al (2016) and Harrison et al (2017) also found that populations of ground-nesting birds like skylarks and lapwings declined near solar installations, while small animal movement dropped by up to 50% due to fencing and habitat barriers. Insects and amphibians are similarly affected by the "lake effect" reflection from panels, which can disrupt breeding and migration cycles.[15][16]

KSCA contacted the lead authors of the RSPB Survey, Dr Joshua Copping and Dr Catherine Waite to understand how their research could inform the Kingsway Solar proposal. It's important to note that their research focused on small-scale solar farms in intensively farmed arable areas of the Fens. Nevertheless, their work is key evidence that ongoing land management is critical.

Key takeaways based on their research:

- Solar farms with mixed habitats are better at supporting local bird populations than simple habitat solar farms or intensively farmed arable land.
- The study didn't look at how the construction phase of solar farms affects birds, so more research is needed. [Note; the construction phase for Kingsway would be longer than for any of the solar installations explored in this research]
- Some birds, like skylarks, may need specific strategies to ensure they are not displaced by the placement of solar panels.
- Lapwings and skylarks prefer open fields and don't benefit from solar farms.
- More research is needed on how solar farms affect migrating birds, mammals and insects.
- Long-term monitoring, including citizen science, could provide better data.
- Solar farms should avoid sensitive natural areas and high-quality farmland.

[14] Copping JP, Waite CE et al. Solar farm management influences breeding bird responses in an arable-dominated landscape. *Bird Study.* 2025;72:3, 217-222,
[15] Montag, H et al. The effects of solar farms on local biodiversity: a comparative study. Clarkson and Woods and Wychwood Biodiversity. 2016
[16] Harrison C, et al. 'Evidence review of the impact of solar farms on birds, bats and general ecology', Natural England, Commissioned Report NEER012. 2017.

Findings that mixed and well-managed habitats can increase local bird populations and enhance biodiversity are supported by recent research from the Royal Holloway University, London. The report *Evaluating the Potential for Improving Biodiversity in Solar Farms*[17] (January 2025) notes that while solar farms support the UK's net-zero goals, they can also harm biodiversity through habitat loss, fragmentation and changes to soil and microclimate. Ground-mounted panels restrict vegetation growth and wildlife movement, leading to reduced ecological diversity. Claims of biodiversity enhancement should therefore be approached cautiously, as small habitat gains rarely offset the wider losses caused by large-scale schemes like Kingsway Solar. Without clear ecological standards, long-term monitoring and local ecological input, such developments risk reducing overall biodiversity rather than improving it.

Our correspondence with the authors is included in the Appendix C.

Flora and Habitats

The studies on flora appear to be generally thorough; however, the County Rare Plant Registers and the BSBI/Natural England "heatmaps" identifying areas of important habitat should have been included in the desktop study and cross-checked to ensure comprehensive coverage.

In PEIR Volume 2, Chapter 6 (Biodiversity), arable field margins are correctly recognised as a 'Habitat of Principal Importance (HPI)' and scoped into the assessment (PEIR Volume 2, Chapter 6, Table 6.8). However, there is no explanation of how these habitats will be managed during construction, operation, or decommissioning. The only statement provided, *"embedded measures and habitat creation within the Site will result in beneficial effects through the retention and enhancement of these habitats,"* is generic and unsubstantiated. The PEA includes detailed recommendations for management and the ES should confirm whether these will be adopted. The same concern applies to 'Lowland Calcareous Grassland' and 'Other Flora,' for which identical wording appears in Table 6.8 without further clarification.

The statement *"The inclusion of long-term creation of arable field margins to be provided to meet BNG, will provide an enhanced and secured environment for arable flora resulting in an overall beneficial effect which is significant"* (PEIR Volume 2, 6.6.13) is questionable, as the majority of field margins were reported in the PEA as containing headlands with assemblages of arable plants. Some margins could be improved, but the level of BNG from this is unquantified and will not be that associated with creation of entirely new margins, as suggested. Calculations of BNG need to be presented clearly.

While we are pleased to see that Old Cambridge Verges and other County Wildlife Sites are recognised, we are concerned that there is no suggestion that any protection will be given to them during construction and/or decommissioning (PEIR Volume 2, Chapter 6, Tables 6.5 and 6.8). The risk is recognised: *"Scoped in (Construction and Decommissioning) - located within the Site. Potential for direct and / or indirect effects, although embedded mitigation will*

[17] Benbouzid I and David Simon. *Evaluating the Potential for Improving Biodiversity in Solar Farms.* Royal Holloway University, January 2025. Available at: https://www.royalholloway.ac.uk/media/0rzbhbd0/evaluating-the-potential-for-improving-biodiversity-in-solar-farms.pdf (accessed October 2025).

likely avoid adverse effects during construction and / or decommissioning" (PEIR Volume 2, Chapter 6, Table 6.8). A clear indication of how these sites will be protected is required.

Site-Specific Comments

1. **Great Coven's Wood:** The Planning Inspectorate has accepted (ID 3223 in the Scoping Opinion) that Great Coven's Wood can be scoped out of further assessment *"On the basis that the ES secures appropriate measures in the oCEMP and oOEMP to avoid impacts on Great Covens Wood and Lower Wood CWS and demonstrates agreement with the relevant consultees"*, since *"The Scoping Report concludes that there would be no likely significant effects on this receptor due to the distance from all elements of the proposed development."* It is noted, however, that the inter array connection corridor, which it is understood (from comments made at the in-person consultation events) may also be used for an access road, runs along the boundary of this wood. While the proximity of the corridor is recognised in Table 6.8 of Chapter 6, the assessment: *"Potential for indirect effects due to proximity"* the claim that *"embedded mitigation will likely avoid adverse effects during construction and / or decommissioning"* is totally inadequate and unsupported by any evidence. Further evidence of how Great Coven's Wood is to be protected is required.

2. **Land Parcel A:** Paragraph 5.6.6 of the Breeding Bird Survey report reads: *"Considering the quality and extent of the habitats present, the southern Land Parcel provided the most suitable areas for breeding birds. This is reflected by the species diversity and abundance recorded during the surveys for breeding birds undertaken in 2024.* ***The majority of breeding corn bunting, grey partridge, linnet, stock dove and yellowhammer territories were present in this area, as was the turtle dove territory and possible quail territory****. Whilst supporting lower diversity and abundance of scarce farmland bird species, the northern Land Parcel supported breeding populations of various notable species including dunnock, house sparrow, kestrel, lapwing, linnet, skylark, tawny owl, whitethroat, willow warbler and yellowhammer."* [Note - the southern Land Parcel is A and the northern one is B] A potential barn owl roosting site is reported (Volume 4 Appendix 6.2 Baseline Data Part4) and there have been sightings of barn owl on the Fulbourn Road to the north of this, reported on iRecord. It is of concern that Land Parcel A is very densely populated with solar panels, which would clearly adversely affect the ground nesting birds (corn bunting, grey partridge and possible quail) and barn owl and also, by surrounding the copse where they nest, drive out the turtle dove. There are also many badger setts in and around this area. The ecological importance of this Land Parcel is clearly not recognised by the developer, as evidenced by the comment on their interactive map that *"Infrastructure is proposed as much as possible within Land Parcel A because of the limited potential effects on receptors such as local communities, PRoW and local wildlife"*.

3. **Grid Connection Corridor:** In PEIR Volume 2 Chapter 6 Biodiversity it is stated that *"A Biodiversity Data Search (BDS) was undertaken… … as part of the Preliminary Ecological Appraisal (PEA), detailed in PEIR Volume 4, Appendix 6.2"*, and specifically that *"The BDS for the Grid Connection Corridor was based on an earlier alignment iteration therefore does not include a full 2km buffer but does include the*

current iterative Grid Connection Corridor". There is, however, no reference made to the Grid Connection Corridor in the PEA. The Executive Summary states that *"This report presents the results of a Preliminary Ecological Appraisal (PEA), comprising a background data search (BDS), a UK habitat classification (UKHabs) survey and assessment for protected or otherwise notable species, at the proposed site of Kingsway Solar facility. The red line boundary includes PV Areas A, B and C"*

It is not therefore possible to critically appraise statements made in Chapter 6 regarding the BDS in the Grid Connection Corridor, or in the inter-array connection corridors. This omission is significant because the Grid Connection Corridor crosses a distinct landscape with likely different habitats and species. Without clear, site-specific data, the ecological baseline for this part of the development remains uncertain and weakens the credibility of the overall biodiversity assessment.

Regarding other assessments in the Grid Connection Corridor, there are numerous references to surveys due to take place between August 2025 and June 2026. The only data which are apparently available (but not presented in the PEIR) are a Breeding Bird survey (using a limited sampling approach of three unspecified walked transects) and a Great Crested Newt eDNA survey.The implication is that many surveys have either not yet been conducted or, if they have, the findings are insufficiently robust to inform a proper assessment at this stage. This raises a serious concern: the baseline evidence underpinning the environmental assessment is incomplete, meaning the true ecological impacts of the scheme cannot be properly understood or scrutinised.

KSCA Citizen Science Project: Step into Nature

The *Step into Nature* campaign is a community-led initiative by KSCA to record and monitor the biodiversity of the landscape that would be affected by the proposed Kingsway Solar facility. Since March 2025, local volunteers have been carrying out citizen science surveys to document wildlife and habitats across the area.

Local residents were invited to record sightings of brown hares, deer, barn owls, bats, butterflies, insects, skylarks and migrating farmland birds, as well as hedgerow and field margin flora, all key indicators of farmland biodiversity and ecosystem health. Awareness materials and posters were displayed along key PRoW, encouraging participation from walkers and residents.

All sightings were submitted via iRecord, ensuring that observations could be validated and incorporated into the national biodiversity database. Data collection was focused within an area extending 2 km around the proposed development site, providing a robust, community-generated evidence base of the species and habitats currently supported by this landscape. (It should be recognised, however, that records in some areas are limited by restrictions on public access.)

This initiative demonstrates strong local engagement and contributes meaningful ecological data that should be considered in the assessment of environmental impacts associated with the proposed development.

The KSCA is able to share further information from this project to support ongoing biodiversity monitoring and contribute to a more comprehensive understanding of local ecological value and sensitivity. This community-led initiative demonstrates strong local engagement and offers valuable evidence to inform environmental assessments and planning decisions.

KSCA Assessment and Position

A full and reliable assessment of the ecological impact of the proposed development is not currently possible. Many surveys remain incomplete or unreported, particularly for **Land Parcel C**, the **Inter-Array Corridors** and the **Grid Connection Corridor**.

However, Kingsway's attitude toward ecology can be inferred from the quality and completeness of the information presented. The decision to bring forward a proposal for consultation with such extensive evidence gaps indicates that biodiversity has not been treated as a priority consideration. In several instances, professional advice from consultants appears to have been disregarded; for example, recommendations on fencing design to maintain wildlife access.

Published information has also been presented selectively or inaccurately, often to minimise the apparent significance of impacts. References to published studies on the effects of solar farms on bats are partial and misleading

Several widespread and ecologically important species—such as **brown hare**, **deer**, **red fox** and **hedgehog**—have been ignored or discounted without adequate justification. Significant adverse effects on key species, notably **turtle dove**, have been given little prominence, and where impacts cannot be denied, the text attempts to downplay them by juxtaposing unrelated claims of ecological benefit.

Overall, Chapter 6 of the PEIR appears to downplay the severity of biodiversity impacts, presenting a narrative that planting schemes and improvements for pollinators will adequately mitigate irreversible harm to other species. This approach is scientifically unsubstantiated and ethically questionable, particularly given the evident displacement and habitat loss affecting **ground-nesting birds**, which are effectively being sacrificed in favour of more convenient species indicators.

Claims of significant **Biodiversity Net Gain (BNG)** are also unconvincing. Baseline conditions—particularly the quality of field margins and arable habitats—have not been properly established. Improvements proposed for some species cannot be evaluated in isolation from the losses to others. At this stage, there is **no verifiable evidence** on which the claimed BNG uplift can be objectively judged, making the assertions in the PEIR premature and unsupported.

What KSCA Asks from Kingsway

- **Complete and Publish Missing Ecological Surveys:** All outstanding ecological surveys and assessments must be completed and published in full, allowing the community to review and provide informed feedback.

- **Reassess Interaction of Badger Setts with Final Design:** An accurate determination of the number and locations of setts affected by the scheme should be achieved by revisiting the data on numbers and locations of setts in conjunction with the proposed infrastructure layout.

- **Clarify Fencing Design and Mammal Movement:** A clear statement is required on how fencing will be designed and managed to minimise impacts on the movement of mammals, including badger, brown hare, deer, red fox and hedgehog. The residual effects of restricted movement must be explicitly assessed and reported.

- **Review Bat Data and Redesign Infrastructure as Needed:** Bat data should be reviewed and made public once available. Where adverse effects are identified, infrastructure layouts should be revised to reduce impacts. It is not acceptable to dismiss peer-reviewed research, including evidence from the Llanwern Solar Plant, which demonstrates measurable declines in bat activity linked to large-scale solar developments.

- **Conduct a Genuine Cumulative Assessment for Ground-Nesting Birds:** A transparent cumulative assessment must be undertaken, exploring the total area of suitable nesting sites lost, rather than taking each site in isolation.

- **Provide Detailed Proposals for Replacement Nesting Sites:** Plans for substitute nesting areas for ground-nesting birds—such as skylark plots—must include detailed mapping, clear management prescriptions and confirmation that proposed locations are not already occupied by existing breeding pairs.

- **Set Out Protection Measures for Sensitive Flora and Field Margins:** Specific, enforceable measures must be provided to protect field margins, old Cambridge verges and other priority flora habitats during construction and decommissioning. General statements that “embedded measures and habitat creation will provide beneficial effects” are inadequate.

- **Assess Biodiversity Impacts of New Internal Roads:** Kingsway should provide a clear statement on the effects of new internal access routes within the site, particularly with regard to access to the isolated part in Land Parcel C, where routes may pass close to Great Coven’s Wood. Potential habitat fragmentation and disturbance must be evaluated.

- **Develop a Targeted Biodiversity Mitigation Plan for Land Parcel A:** Land Parcel A supports several notable and protected species, including badger, corn bunting, grey partridge, linnet, stock dove, yellowhammer, turtle dove, quail and barn owl. Given the density of infrastructure proposed in this area, and the importance of species present, particularly turtle dove, Kingsway must provide a specific mitigation and habitat management plan to address and minimise ecological impacts.

Ecology, Landscape and Land Management Analysis

Overview

KSCA has reviewed PEIR Volume 2, Chapter 6 (Biodiversity) and associated environmental information. While Kingsway Solar promises a minimum 10% Biodiversity Net Gain (BNG) and outlines general plans for new habitats, wildflower planting and grazing, the details that would show how this will actually be achieved are not yet provided.

At this stage, the proposals are broad and aspirational. Important ecological surveys are still ongoing, the baseline data are incomplete and there are no clear maps or management plans showing where new habitats will go or how they will be maintained. This means the environmental benefits being claimed cannot yet be verified.

Incomplete Surveys and Unverified Gains

Kingsway Solar's own documents confirm that **not all ecological surveys have been completed** (PEIR Volume 2, 6.2.3–6.2.5). Table 6.2 (Field Survey Methodologies) includes surveys for bats and wintering birds in Land Parcel C and all surveys with the exception of breeding bird and eDNA for great crested newt in the inter-array and Grid Connection Corridors.

Despite this, the PEIR repeatedly refers to achieving a 10% BNG (6.2.13., 6.2.32, 6.4.3, 6.6.13,Table 6.9 etc) stating that *"All anticipated habitat loss will be mitigation and / or compensated through the BNG strategy"* (6.6.6.16). Without a full ecological baseline, this figure cannot be measured or proven. The PEIR itself admits that the detailed calculations will not be available until the Environmental Statement (ES) stage. The 10% figure, therefore, appears to be a policy target rather than an evidenced outcome and consultees have no way to check how it will be achieved.

Lack of Spatial and Practical Detail

Kingsway Solar's proposals mention hedgerow planting, wildflower meadows and buffer strips, but the PEIR does not include maps, habitat plans or planting details. There is no indication of where these specific habitats would be created, what species would be used or how large each area will be.

Even the proposed 5-metre buffers around hedgerows and watercourses are described only in general terms, with no details on fencing, access restrictions or measures to protect them during construction.

The plan to graze sheep beneath the panels (PEIR Volume 4, Appendix 10.4) is also untested and no evidence is given on soil recovery rates, stocking levels or biodiversity outcomes. Simply switching to grass cover does not automatically create ecological benefits unless it is carefully managed and monitored (see section on *BMV and Soil Assessment Analysis*).

Landscape Context and Sensitivity

The Kingsway Solar site lies within a diverse and sensitive landscape, identified in the Cambridge Local Plan and the South Cambridgeshire Landscape Character Assessment as having strong rural character and ecological value. The area sits on the East Anglian Chalk, merging with clay woodlands and chalk grasslands. It is defined by traditional hedgerows, field margins and wide open views that are home to farmland birds, pollinators and important ecological corridors between sites such as Devil's Dyke SSSI and Fleam Dyke SSSI (Table 6.4: Statutory Designated Sites).

Kingsway Solar's current plans do not show how these ecological linkages will be protected or enhanced. The absence of an ecological network plan risks breaking these connections and reducing the area's overall biodiversity value.

Long-Term Management and Monitoring

The PEIR refers to an Outline Operational Environmental Management Plan ('Outline OEMP') and Outline Landscape and Ecological Management Plan ('Outline LEMP'), but gives no detail on how habitats will be managed over time (PEIR 6.4.11–6.4.13).

National guidance[18] requires developers to secure at least 30 years of management and monitoring for BNG, supported by measurable targets and regular reporting. None of these commitments are currently in place for the Kingsway Solar scheme.

Without clear monitoring indicators, funding commitments or named responsibilities, the promises of biodiversity enhancement remain unenforceable and uncertain.

KSCA Assessment and Position

KSCA recognises that Kingsway Solar's ecological goals sound positive, but the current evidence is incomplete and inconsistent. Many of the baseline surveys are unfinished, the claimed BNG is unverified and no clear habitat maps or long-term management plans have been provided.

Given the sensitive and varied nature of this landscape, it is vital that Kingsway Solar demonstrates exactly how biodiversity and rural character will be protected and improved. As it stands, these assurances are too vague to be relied upon.

What KSCA Asks from Kingsway Solar

- **Publish the complete baseline ecological data** for all developable areas and Grid Connection Corridors before submission of the ES.
- **Provide a full BNG calculation** using **DEFRA Metric** (https://www.gov.uk/guidance/biodiversity-metric-calculate-the-biodiversity-net-gain-of-a-project-or-development), including habitat condition assessments and maps

[18] Understanding biodiversity net gain. Available at: https://www.gov.uk/guidance/understanding-biodiversity-net-gain#:~:text=Feedback-,What%20BNG%20is,for%20local%20planning%20authorities%20(%20LPAs%20) (accessed October 2025)

showing the precise locations of proposed habitat creation, enhancement and long-term management areas.

- **Present detailed habitat and land management plans**, including proposals for planting, grazing and buffer zones, with accompanying species lists, management regimes and fencing or access control details.
- **Include a soil restoration and monitoring plan**, demonstrating how soil structure, fertility and carbon storage will be restored and measured over time.
- Commit to a minimum 30-year habitat management and monitoring programme, in accordance with national guidance, with clear performance indicators and reporting intervals.
- **Demonstrate ecological connectivity**, showing how the scheme will maintain and enhance wildlife movement between Devil's Dyke, Fleam Dyke, Great Coven's Wood, Lower Wood and other surrounding habitats.

Until this information is provided, KSCA believes the biodiversity and land management proposals remain aspirational rather than deliverable and cannot yet be considered a reliable or meaningful contribution to environmental enhancement.

Flood and Drainage Analysis

Overview

Flooding and drainage are key community concerns, particularly in and around Weston Colville, where historic incidents have already occurred. The PEIR's treatment of these issues is incomplete and defers critical assessments to later stages. Flood risk is mentioned across multiple parts of the PEIR, including the Non-Technical Summary; Volume 1 (Chapters 3, 4 and 5); Volume 2 (Chapters 9, 15 and 16); and Volume 4 (Appendices 5.3, 9.4, 15.2 and 16.9). KSCA has reviewed all of these sources.

The assessment of flood risk relies almost entirely on Environment Agency flood zone mapping. References are made to a forthcoming Flood Risk Assessment (FRA) to be prepared by a specialist consultant, but this document is not yet available and will only be provided at the Environmental Statement (ES) stage. As such, consultees currently have no access to the technical evidence required to assess potential flooding or drainage impacts.

The PEIR's Climate Change Chapter (Volume 2, Chapter 15) refers to flood risk only in terms of the effect of flooding ***on*** solar farm infrastructure, not the impact ***of*** that infrastructure ***on*** local flood risk. Kingsway Solar's response in Appendix 15.2 states that the Climate Change Risk Assessment (CCRA) *"considers a range of climatic hazards, including flooding and increased rainfall"* and that the final ES will "*utilise the Flood Risk Assessment and Outline Drainage Strategy prepared for the Scheme."* However, no details of these documents or their findings are currently provided.

In Volume 2, Chapter 16 (Other Environmental Topics, 16.6.25), Kingsway Solar states that *"an Outline Surface Water Drainage Strategy will be prepared to ensure no increase in surface water runoff from the Site compared to the greenfield scenario."* No details are given on how this will be achieved, even though the BESS compound alone will include more than 3 ha of impermeable hardstanding and is flanked by Flood Zones 2 and 3 on both sides.

Key Flood and Groundwater Issues

- **Floodplain compensation:** Any development within the fluvial floodplain must provide compensatory storage through designated *Floodplain Compensation Areas*. These must be demonstrated wherever the scheme interacts with the 1-in-100-year plus climate change flood extent. The Environment Agency may also require compensation for *surface water ponding* areas to ensure that local flood storage capacity is not reduced. Temporary works, haul roads, ramped crossings and all watercourse crossings must also be designed to maintain floodplain volume and avoid obstruction of flow. These measures are statutory requirements for consent and must be demonstrated before DCO submission. No such measures have been described in the PEIR.

- **Temporary works and crossings:** The scheme is expected to include temporary crossings to enable plant access across the site. These crossings are likely to require ramped structures or culverts, which must be designed to avoid impeding flow. A Flood Risk Assessment for temporary works should be undertaken to at least a

1-in-30-year return period (plus climate change allowance) to ensure construction safety and compliance with best practice. Upgraded culverts could increase downstream flood risk if they remove natural flow restrictions that currently attenuate flood peaks. No assessment of temporary works has yet been undertaken.

- **Catchment impacts upstream of Weston Colville:** The portion of Land Parcel C draining toward Chapel Road and the Reading Room (see Figure F&DA 1) lies within a local catchment that already experiences flooding. This area should be examined for opportunities to integrate *flood attenuation measures* into the scheme design, reducing downstream flood risk rather than exacerbating it.

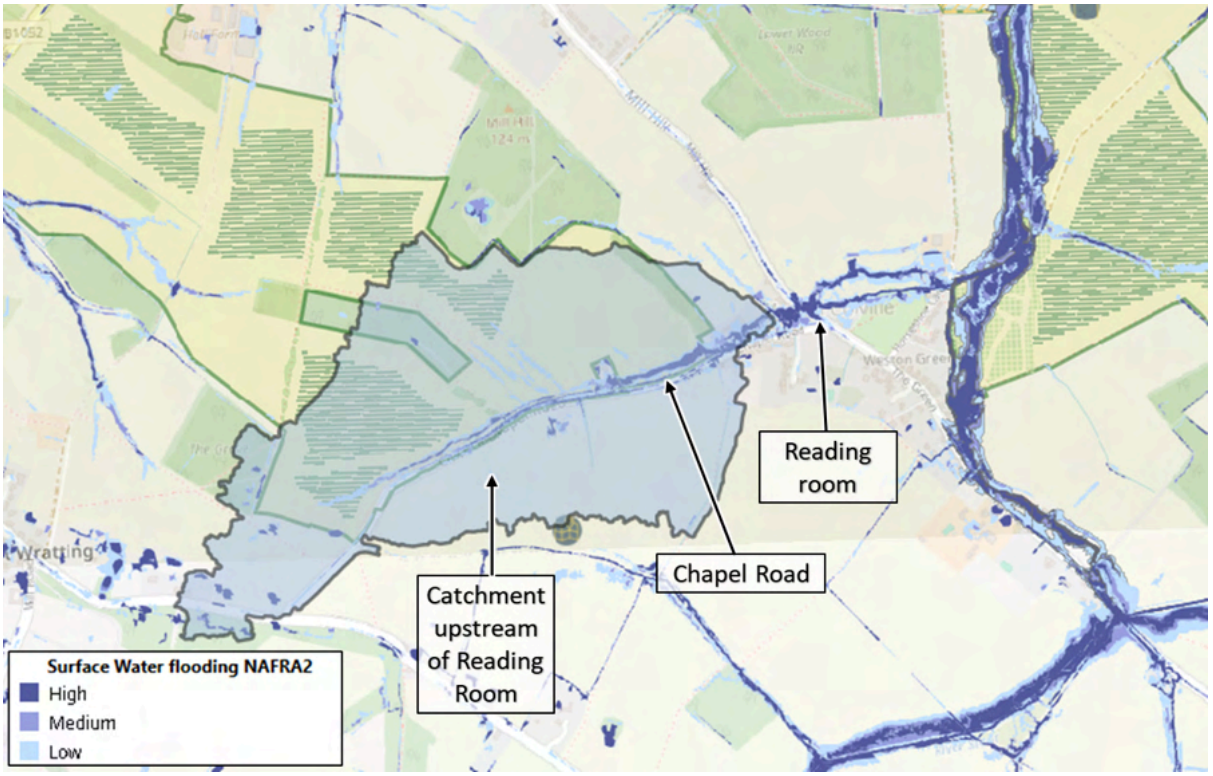
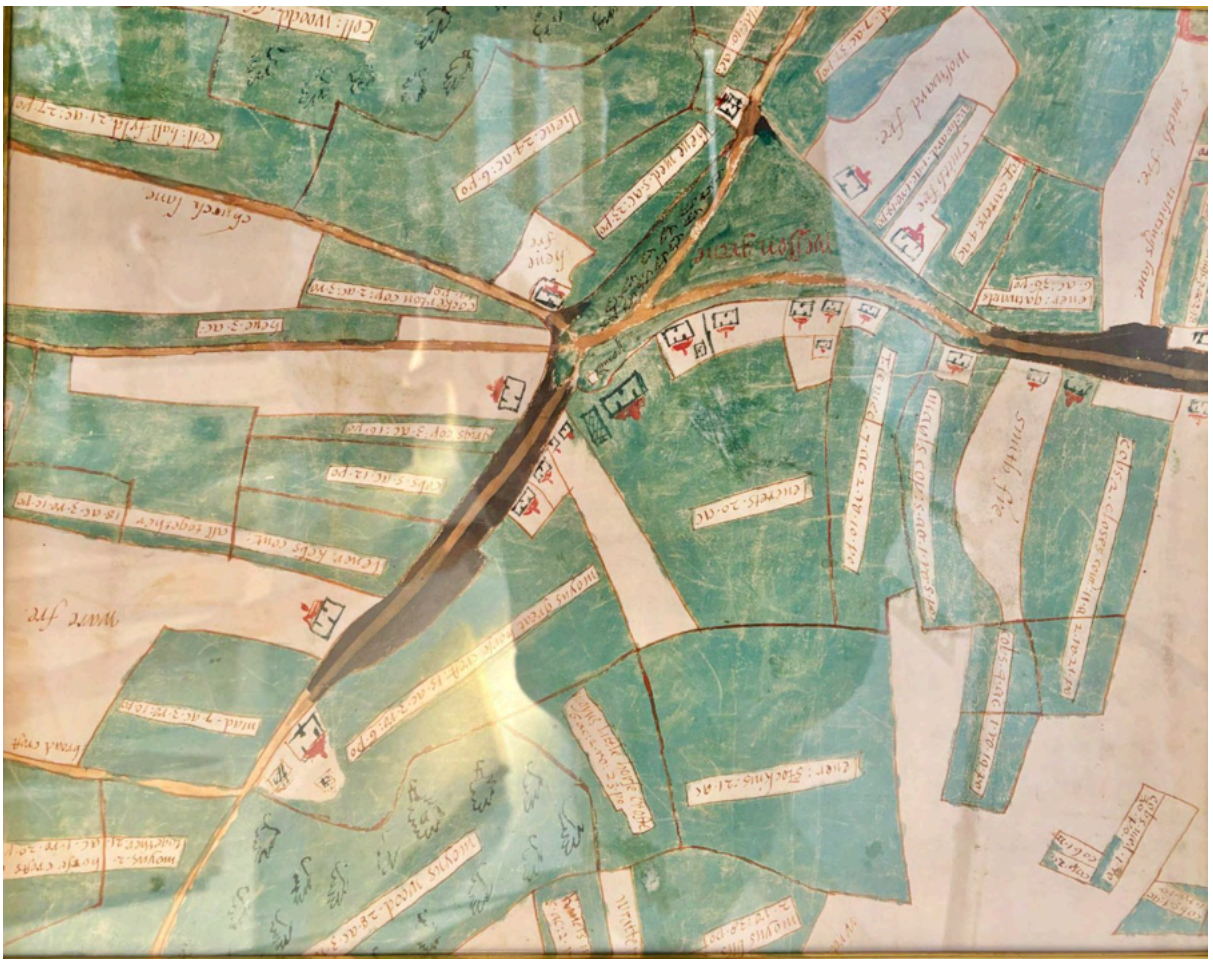


Figure F&DA 1: Hydrological catchment upstream of the Reading Room

- **Groundwater contamination from BESS firewater:** The BESS compound sits on the transition between glacial clay and chalk strata. The Environment Agency, in its scoping response (PEIR Volume 4, Appendix 9.4), identified this as a high-risk location and recommended siting the BESS on the Lowestoft Formation, preferably to the south of Land Parcel B or southeast of Land Parcel C. These areas are, however, closer to residential properties and therefore unacceptable to KSCA. Despite this, the PEIR (Volume 2, Chapter 9, Table 9.3) classifies all potential groundwater impacts, including from contaminated “firewater,” as *negligible*. This conclusion is unsound. A significant BESS fire could release toxic runoff into the aquifer or nearby abstraction zones, posing long-term risks to groundwater quality and public water supply.
- Historically, the area around Weston Colville and Chapel Road has been an area of flooding as depicted in Figure F&DA 2a and b below.



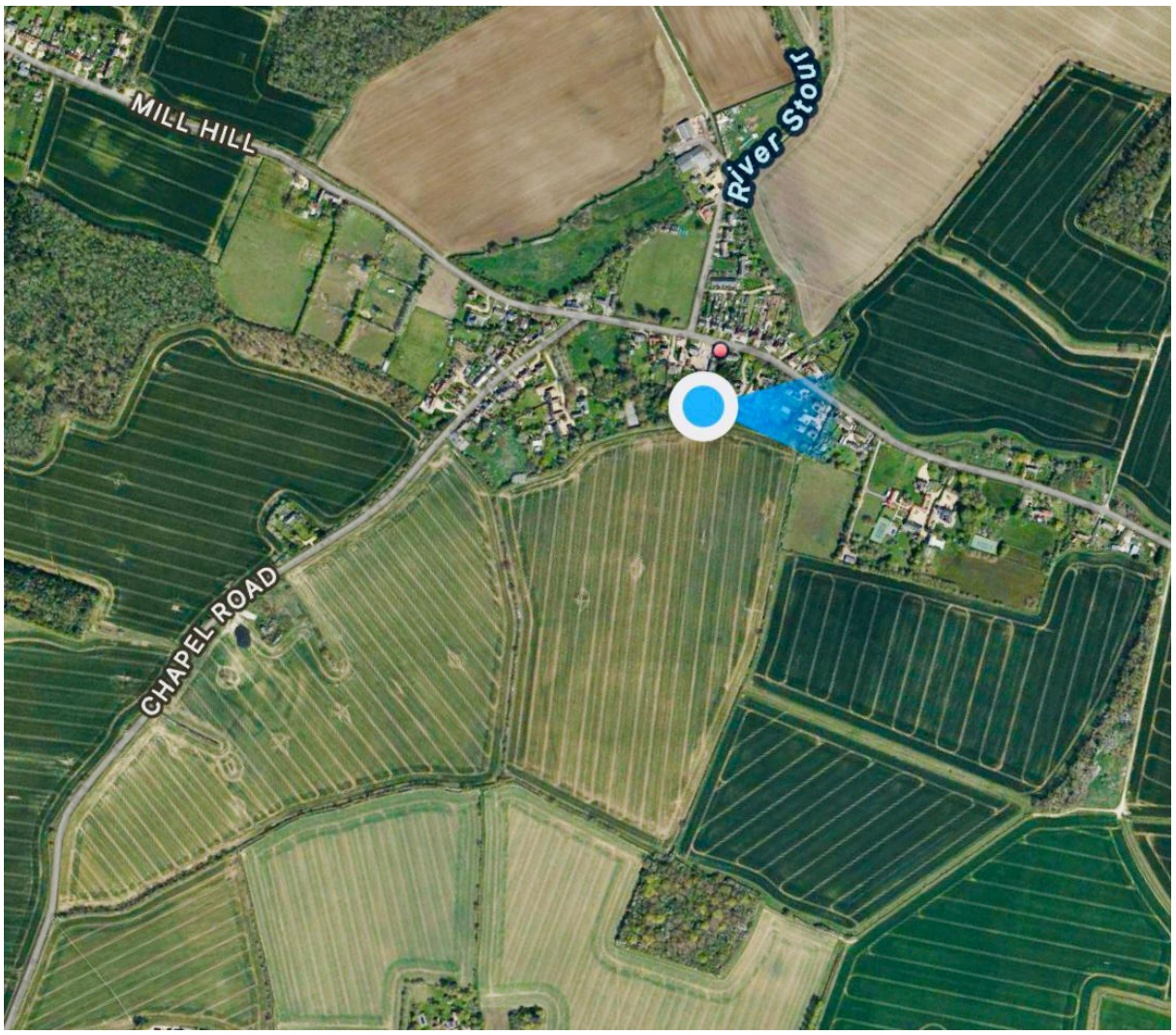


Figure F&DA 2a and b: Weston Green end of Weston Colville in the 1612 map of Weston Colville which is on vellum in the Cambridge University Library. This shows that flooding in Weston Green has been a problem for centuries despite all the efforts with ditching to prevent it. The flooded areas are marked in brown and include flooding down Chapel Road; at the ford and along the main road, parallel with the River Stour. This flooding shows the reason for the old thatched cottages being so far back from this road - to avoid the flood zone.

Modern day photos show the extent of flooding in the area (Figures F&DA 3 and 4).

Photograph no.1 taken of Restriction 1 on 29 February 2020 . The flooded van gives a indication of depth.

Figure F&DA 3

January 2025

Figure F&DA 4

KSCA Assessment and Position

The Kingsway Solar flood and drainage assessment is incomplete and inconsistent. The decision to defer the Flood Risk Assessment (FRA) and Outline Surface Water Drainage Strategy (oSWDS) prevents meaningful scrutiny by regulators, the Lead Local Flood Authority, or the public. Baseline data are weak, the reliance on generic Environment Agency flood zones is inadequate and there is no quantified assessment of the scheme's effect on local flood dynamics, particularly around Weston Colville and Chapel Road.

The attempt to scope out groundwater impacts was rejected by the Environment Agency, yet the PEIR still downplays these risks. The potential contamination of groundwater following a BESS fire remains unassessed. The impact of major and historic flooding in key areas, such as the proposed access and maintenance points in Land Parcel C, must be examined with more diligence and care – not least as they are likely to worsen in coming decades. Overall, the approach fails to demonstrate compliance with national flood-risk and water-protection policy.

What KSCA Asks from Kingsway Solar

- **Complete the Flood Risk Assessment (FRA)** and publish it for public consultation before DCO submission.
- **Assess not only the effects of flooding on infrastructure** but also the effects of infrastructure on flood risk, particularly for Land Parcel C, the BESS and the main substation.
- **Include detailed modelling of temporary works and watercourse crossings**, showing how floodplain compensation will be achieved.
- **Provide a full Outline Surface Water Drainage Strategy,** with clear measures for runoff control, attenuation and pollution prevention.
- **Undertake a groundwater contamination risk assessment** for potential BESS fire events, demonstrating containment, recovery and mitigation measures.
- **Explore flood attenuation opportunities within the scheme** to reduce existing local flood risk, especially along Chapel Road and Weston Colville.
- **Ensure that all temporary works are tested for flood risk** using a minimum 1-in-30-year design standard and that floodplain compensation is demonstrated prior to DCO submission.

Noise and Vibration Assessment

Overview

This review by KSCA examines the PEIR Volume 2, Chapter 12 (Noise and Vibration) for the Kingsway Solar project. It identifies significant information gaps, unverified assumptions and deferred mitigation that together prevent a full understanding of the scheme's potential effects on residents, amenity, ecology and wellbeing.

Context and Emerging Evidence

For rural communities such as those in South Cambridgeshire, background noise levels are naturally low. Even modest, continuous hums can therefore be highly intrusive. Recent research published in *Nature* (2025), alongside findings from the World Health Organization and the American Public Health Association, University of California and Harvard, shows that chronic low-level noise exposure can increase stress hormones, disturb sleep, elevate cardiovascular risk and impair cognitive health. These risks emphasise that persistent industrial noise in quiet rural areas is not just an amenity issue but a legitimate public-health concern.

Cleve Hill in Kent, the UK's first operational utility-scale solar facility, provides the only real-world evidence of operational noise impacts from solar projects of this size. The experience there has demonstrated that large-scale solar energy infrastructure is not silent: constant low-frequency hums and tones from inverters and transformers are clearly audible across the site and surrounding areas. This issue, largely unrecognised in early assessments, is only now being understood as solar development expands to national scale.

Baseline Conditions and Surveys

According to the PEIR (12.3.1), existing noise levels around the proposed Kingsway Solar site are generally low (especially at night), influenced mainly by distant road and rail traffic (A11, A14 and the Cambridge–Newmarket line). However, baseline monitoring remains incomplete. It is assumed that future baseline noise levels are unlikely to be different to existing noise levels (12.2.8–12.2.13).

A meeting with local planning authorities (LPAs) took place on 29 July 2025 to agree survey scope, but the final receptor list and locations have not been published. DEFRA strategic noise mapping is being used as an interim reference (12.3.2). Notably, several nearby communities, including Church End, Weston Colville and Mill Hill, were not included in the preliminary survey despite their proximity to proposed infrastructure.

Construction-Phase Noise and Vibration

The PEIR predicts no significant construction noise impacts, assuming fewer than 25 HGV movements per day (12.2.17), although, as noted in section on *Traffic and Transport*, much higher figures are also presented in PEIR Volume 2, Chapter 11. Mitigation is proposed to rely on *"best practice"* measures such as restricted working hours and careful equipment

placement, to be detailed later in the Outline Construction Environmental Management Plan (CEMP) and Construction Traffic Management Plan (CTMP) (12.4.1–12.4.2).

The PEIR refers to the use of piling for erection of solar PV module mounting structures, and also (subject to the ground conditions) in the Grid Connection Corridor, and post driving for fencing installation but does not confirm the chosen method. Table 3.1 of PEIR Volume 1, Chapter 3 states that *"it is assumed fencing would be directly driven into the ground using a standard post driver with no excavation of foundations,"*. When asked whether piling would be driven or screwed, Kingsway Solar's Community Relations team confirmed that *"as the detailed design has not yet been undertaken, the piling solution for individual locations has not yet been determined."* It must therefore be assumed that driven piling remains under active consideration. However, no reference is made to the associated noise impacts of piling or post driving.

If driven piling is used, this could generate noise significantly higher than the levels modelled in the PEIR, with potential to disturb nearby residents, wildlife and users of adjacent PROWs. The omission of any assessment of piling noise or vibration means the current conclusions on construction noise are incomplete.

Since neither the CEMP nor the CTMP are yet available for review, consultees cannot evaluate whether noise controls will be enforceable, whether night-time activities are excluded or how vibration from heavy plant and piling will be managed.

Operational-Phase Noise

Although solar panels are considered to be silent, associated infrastructure such as substations, inverters, transformers and the Battery Energy Storage System (BESS), all produce low-frequency hums (12.2.22–12.2.23). The 400 kV Overhead Line (OHL) also presents a risk of audible corona discharge and intermittent crackling during periods of high humidity, further contributing to background noise levels in an otherwise rural soundscape.

The PEIR identifies 17 residential receptors within 200 m of the OHL corridor where moderate to major adverse effects are predicted (12.5.8–12.7.2, Table 12.3). Even after mitigation, significant residual operational noise is likely to remain. Because the final OHL alignment is still undecided, the true number of affected receptors is uncertain and cumulative interaction with visual and health impacts has not been assessed.

Noise on Public Rights of Way (PRoW) During Operation

The PEIR entirely omits assessment of PRoW noise impacts. Kingsway Solar's project lead, David Vernon, has stated that PRoW users are "transient receptors," so effects are excluded. This is unacceptable: a byway runs directly beside the main BESS, and comparable studies (Whitelee 2023[19]; Tealing BESS Noise Impact Assessment Report,

[19] RSK Acoustics. 'Whitelee Planning Support for Battery Storage—Noise Assessment. Report Ref. 2061684-RSKA-RP-002.' First revision. May 2023. Accessed October 14, 2025. https://www.energyconsents.scot/ApplicationDetails.aspx?cr=ECU00002198

2021[20]; Crabbs Green BESS Noise Assessment for Planning 2022[21]), show **noise can persist for up to 1 km before falling to 30 dB**. Walkers or riders could therefore experience intrusive hums for about 45 minutes as they approach, pass and leave the solar farm. Around 250 inverters (Volume 1, Chapter 3, Table 3.1) would also create constant background noise along large sections of the PRoW network, including the long-distance Icknield Way/E2. The absence of noise contour mapping for these routes is a critical omission.

Vibration Effects

Construction noise and vibration will be assessed in the ES using the BS 5228 methodology, once detailed site and equipment data are available. All impacts are expected to be short term and temporary. Operational vibration has been scoped out, but only conditionally: the ES must confirm equipment details to demonstrate effects will be negligible (12.2.15, Table 122.1: Scope of Assessment in relation to Noise and Vibration).

Planning Inspectorate (PINS) Requirements

PINS accepted the scoping-out of operational vibration only on condition that full justification be included in the ES. It further required:

- inclusion of noise effects on SSSIs and SACs within the biodiversity assessment (12.2.15, Table 12.1);
- explanation of receptor omissions, particularly Church End, Weston Colville and Mill Hill; and
- confirmation that prevailing wind direction is included in propagation modelling.

None of these requirements are yet addressed in the current PEIR.

What KSCA Asks from Kingsway Solar

- **Include real-world benchmarking from Cleve Hill:** Submit in-service operational noise evidence (octave-band spectra, day–evening–night levels, tonal/low-frequency analysis, met conditions, receptor distances) to validate Kingsway's predictions.
- **Publish full receptor mapping and methodology:** Show all residential, community and ecological receptors (including any currently omitted), with clear selection criteria and data sources.
- **Assess ecological and PRoW noise effects:** Model noise disturbance to SSSIs, SAC and species-sensitive habitats, including impacts on bats, birds and other fauna and provide contour mapping for PRoW to capture effects on walkers, riders and recreational amenity.

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[20] AE Associates. 'Tealing Battery Energy Storage System Facility Noise Impact Assessment Report.' January 2021. Accessed October 14, 2025. https://www.tealingbess.com/resources/site/document/4285_NoiseReport_v1-3_PB_20220114.pdf

[21] Ion Acoustics Ltd. 'Crabbs Green Battery Energy Storage Noise Assessment for Planning. Issue A1690 R01B.' April 6, 2022. Accessed October 14, 2025. https://docs.planning.org.uk/20220501/138/RB1GQ6QN02700/2unnv6sxwwhulmkd.pdf

- **Redesign/mitigate the OHL route:** Refine alignment to avoid sensitive receptors and publish alternatives (e.g., undergrounding, acoustic shielding) to reduce exposure within 200 m.
- **Submit full mitigation plans at DCO stage:** Provide complete CEMP, CTMP and OEMP with enforceable noise limits, working hours and monitoring procedures—no post-consent deferral.
- **Prevent statutory nuisance and protect wellbeing:** Commit to equipment specifications and acoustic measures that eliminate tonal hums/low-frequency resonance at night
- **Undertake independent post-construction monitoring:** Binding LPA-verified programme with public reporting and clear trigger/response actions for exceedances.

Pylons and Overhead Lines Analysis

Overview

The Kingsway Solar proposal includes a new 15 km 400 kV overhead line (OHL) to connect the solar facility to the planned Burwell South Substation. Two broad corridors, a western and an eastern route, are presented, but no fixed alignment or pylon locations are provided . Pylons are expected to be about 50 m high, reaching 65 m in some places (A14 crossing) (PEIR Volume 1, Chapter 3. 3.6.4). The final route and design of the Grid Connection Corridor (GCC) are still to be refined, meaning all current assessments are based on assumptions rather than confirmed data.

Uncertain and Incomplete Design

Kingsway Solar has used a Rochdale Envelope approach, seeking consent for a range of potential routes rather than a defined line. While this approach is recognised by the Planning Inspectorate , it requires enough design certainty to allow the public and statutory consultees to understand the true impacts. In this case, the envelope is too wide, particularly at the southern end near Lark Hall Farm. Route, pylon spacing and receptor distances are undefined, making the assessments in PEIR Volume 2 Chapter 7 (Landscape and Visual), Chapter 6 (Biodiversity) and Chapter 12 (Noise and Vibration) largely theoretical. During the stage 2 consultation, Kingsway staff said they were not consulting on the GCC despite holding an event in Swaffham Prior. KSCA believes that a separate consultation for the GCC should be held to ensure adequate public consultation.

Landscape and Visual Harm

The proposed overhead line (OHL) would traverse a visually open, rural chalk landscape within National Character Area 87 (East Anglian Chalk) (PEIR Volume 2, Chapter 7, 7.3.15–7.3.17). Kingsway Solar's own assessment identifies major to moderate adverse visual effects for users of nearby Public Rights of Way (PRoW), particularly along the nationally significant Icknield Way/E2 Trail (Table 7.15: Summary of Preliminary Visual Residual Effects). The PEIR itself acknowledges that *"given that the soft landscape planting mitigation measures have not yet been defined in sufficient detail and an Outline LEMP has not been developed, there is no certainty of the residual effects for the Scheme at this stage."* As a result, there is currently no assurance that these significant visual impacts can or will be effectively mitigated.

The OHL would also intrude into areas of high tranquillity identified in PEIR Volume 2, Chapter 7, 7.3.18–7.3.24, thereby undermining the valued landscape character recognised in both the Cambridge and South Cambridgeshire Landscape Character Assessments. This intrusion would erode the quiet, open qualities that define the East Anglian Chalk landscape and contribute to its recognised rural distinctiveness.

These intrusions directly contradict National Planning Policy Framework guidelines[22] specifying that 'the intrinsic character and beauty of the countryside' be not only protected but enhanced (Section 15). These protections and enhancements include visual amenity and as well as the 'natural capital' of valued assets such as soil, biodiversity and landscape. Of particular relevance is paragraph 187 which requires planning policies and decisions to 'contribute to and enhance the natural and local environment'. Best practice defined by the NPPF consequently prioritises measures and design features that minimise visual impacts and recognise the community benefits of trees and woodland as well as valuable arable land.

Paragraph 135 of the NPPF outlining the requirement that development is sympathetic to local character and history is of particular importance to rural areas, as is para 165 requiring that the adverse impacts of renewable and low carbon energy infrastructure projects are addressed appropriately. These include cumulative landscape and visual impacts.

As in other planning policy guidance for rural areas,[23] the impact of large industrial structures in undulating landscapes is of particular concern, given the high levels of visibility of such structures combined with the unique importance of open countryside and uninterrupted skylines to rural areas. Indeed this is a **definitive condition of rurality** for which planning decisions need to be made protectively, taking into account both the short and longer term.

Cumulative Impact of Pylons and Grid Infrastructure

The cumulative visual and environmental impact of multiple overhead lines converging on Burwell is already substantial. The addition of new pylons and grid connection infrastructure associated with the Kingsway Solar project would intensify this effect, creating a concentration of transmission routes across an otherwise open fen-edge landscape. This visual stacking of lines and towers compounds the industrialisation of the rural skyline and further erodes landscape character and tranquillity.

Beyond visual intrusion, the proliferation of pylons may also fragment bird flight paths and ecological corridors, particularly for species sensitive to tall structures and line strike risk. Given that several solar and energy projects are now proposed in the Burwell area, the cumulative presence of grid infrastructure requires a dedicated assessment, rather than being treated as a marginal addition to existing baseline conditions.

Ecological and Bird-Safety Risks

PEIR Volume 2, Chapter 6 (Biodiversity) Table 6.2 (Field Survey Methodologies) states that vantage-point bird surveys are incomplete and that collision-risk modelling for the OHL will only be undertaken at the ES stage. Wintering bird surveys, due to start in October 2025 across Land Parcel C, the inter-array areas and the GCC will inform species presence and distribution, with a *precautionary value of importance* applied in the meantime.

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[22] Ministry of Housing, Communities and Local Government. *National Planning Policy Framework.* London, UK: HM Government; December 2024. Amended February 7, 2025.

[23] Department of the Environment. *Planning Policy Guidance 7: Countryside.* London, UK: HMSO; 1997. Updated March 2001.

This precautionary approach is inadequate given that breeding species such as barn owl, skylark, red kite, kestrel and buzzard (all vulnerable to OHL collisions) are already known to occur within the site. Furthermore Burwell is on the southern edge of migratory routes for Whooper Swam (amber listed), eighteen of which were found dead under power lines near Chatteris on 9/11/24 (Bird Guides 2024). Mitigation remains limited to a generic precautionary statement, with no commitment to proven design measures such as bird diverters or line markers.

Noise and Residential Amenity

Noise modelling in PEIR Volume 2 Chapter 12 (Noise and Vibration) highlights residual operational noise within 200 m of the indicative alignment, affecting 17 residential receptors identified in PEIR Volume 3, Figure 12.6. These are described as having *"moderate to major adverse"* long-term effects. Kingsway Solar states that additional mitigation *"will be considered at the ES stage,"* but without confirmed pylon locations the results cannot be verified.

Heritage and Cultural Landscape Risks

No desk-based heritage assessment has yet been undertaken for the Grid Connection Corridor (GCC), leaving a major gap in the baseline evidence. PEIR Volume 1, Chapter 4 (Table 4.1) confirms that both corridor options would cross or affect nationally and locally significant heritage assets, including Devil's Dyke (Scheduled Monument), Fleam Dyke SSSI and listed buildings near Lopham's Hall and Lower Hare Park. Despite this, the Cultural Heritage chapter postpones detailed setting and impact assessments until the Environmental Statement stage, rather than undertaking early evaluation to inform route selection and avoid harm. KSCA considers this deferral unacceptable.

Public Amenity and Countryside Enjoyment

The OHL route passes close to numerous PROWs and crosses areas described as having high tranquillity. The introduction of 50–65 m pylons would fundamentally change the open skyline and rural character valued by local communities.

A significant finding of the KSCA Community Survey (Appendix A) is that all respondents (100%) feel a connection to the
local landscape and its agricultural heritage, with more than four in five (80.5%) describing this connection as very strong. Nearly all respondents (203 of 209; 97.1%) agreed that they value natural views and peaceful surroundings,

Inter-array connection corridors

The proposed inter-array connection corridors would have substantial landscape, ecological and amenity impacts. Corridor 1 alone extends roughly 2.8 km across open farmland between Dungate Farm and Rectory Farm, which is visually exposed terrain within the East Anglian Chalk landscape. Corridor 2, near Weston Colville, would cut across smaller but equally sensitive agricultural land and local footpaths.

If overhead lines are used, the introduction of 15 m-high poles spaced every 120 m, together with a 25 m working corridor and temporary haul roads, would cause lasting visual intrusion, particularly along nearby PRoW and long-distance trails such as the Icknield Way.

Overall, the Inter-Array Corridors represent a significant source of additional visual and environmental impact, compounding the effects of the main development areas and the 400 kV OHL connection.

KSCA Assessment and Position

KSCA recognises the need for renewable energy infrastructure but finds the proposed Overhead Line (OHL) and Grid Connection Corridor (GCC) procedurally and environmentally inadequate. The PEIR acknowledges major adverse landscape and visual effects but provides no fixed route, pylon design or defined mitigation measures.

Key assessments, including those relating to heritage, bird-strike and operational noise, remain incomplete or deferred to the Environmental Statement (ES), leaving significant risks untested. The OHL and Inter-Array Corridors would bisect tranquil, open chalk landscapes and nationally significant Public Rights of Way such as the Icknield Way, undermining rural character and amenity. Around Burwell, additional pylons would exacerbate cumulative visual and ecological harm by further industrialising the skyline. Without defined alignments, tested mitigation, or compliance with NPPF principles requiring development to protect and enhance the intrinsic character and beauty of the countryside, the OHL and GCC cannot be properly assessed or justified at this stage.

What KSCA Asks from Kingway

- **Fix the OHL alignment, pylon design and inter-array corridor routes** before DCO submission and re-run all related environmental, noise and heritage assessments using these confirmed details.
- **Publish verified photomontages and cumulative-impact visualisations** covering the OHL, solar arrays, substations and inter-array corridors, using representative viewpoints including PROWs and long-distance trails.
- **Undertake bird-collision risk modelling for key species** and commit to evidence-based mitigation such as bird diverters and line markers.
- **Complete a full desk-based and field heritage assessment for the GCC**, including setting analysis for Devil's Dyke, Fleam Dyke and listed buildings near Lopham's Hall and Lower Hare Park.
- **Provide operational noise contour mapping and modelling** for all identified residential receptors and PROWs, with enforceable limits secured in the DCO.
- **Reassess residual landscape and visual effects** in line with NPPF Sections 15, 135 and 165, providing transparent evidence of how adverse impacts on the intrinsic character and beauty of the countryside will be minimised and managed through sensitive design, detailed planting and screening measures that enhance local character, biodiversity and visual amenity

- **Hold a separate public consultation for the GCC**, given its scale, uncertainty and distinct environmental and community effects.

Traffic and Transport Analysis

Overview

Information on traffic and transport is provided in PEIR Volume 2, Chapter 11 (Traffic and Transport) and its associated figures and appendices. The chapter focuses primarily on construction traffic, as this phase will generate the highest number of vehicle movements. However, there is no reference to a formal Traffic Assessment and the Construction Traffic Management Plan (CTMP), the key document for managing and mitigating these impacts, is still *"yet to be finalised,"* preventing the public and consultees from carrying out meaningful scrutiny at this stage. Operational traffic has been assumed to be minimal and has been scoped out of detailed analysis, subject to confirmation of vehicle types and numbers at the Environmental Statement (ES) stage.

Overall, only partial and inconsistent information is provided in the PEIR, giving the impression that traffic and transport assessments are incomplete and not ready for consultation. Major concerns for traffic include complications such as the fact that much of Parcel C is in a flood plain, and that the heavy clay predominating across the site is a major transportation hazard on and off existing roads and proposed haulage tracks.

Inconsistencies and Inadequacies in Traffic Information

The transport data provided contain a number of gaps, with insufficient evidence to justify the projected vehicle movements during the construction phase. Traffic surveys of the roads do not appear to have included the harvesting season when agricultural vehicles, even in the absence of HGVs, cause congestion and delays. No survey data are given in PEIR Volume 4 Appendix 11.3 Traffic Data Tables, although in 11.2.12 it states that *"Traffic surveys for some local junctions and roads on the surrounding highway network undertaken in March 2025. This will be supplemented by further survey data which is scheduled for collection in September 2025".* Evidence of traffic surveys was observed in the second week of March, and automatic monitoring strips are currently in place in early October, neither coinciding with harvest.

The PEIR does not consistently demonstrate how the stated HGV estimates represent the worst-case scenario for HGV movements. It thus fails to meet the requirements of using the Rochdale Envelope, which mandates consideration of the worst-case scenario.

- The original traffic surveys are not provided, only summary tables. The raw traffic surveys need to be made available for scrutiny.
- In the assessments reported in Chapter 11, HGV movements have been evenly divided across Land Parcels A, B and C. This is clearly a gross oversimplification, as it takes no account of the different areas, panel coverage densities and lengths of access road construction needed in the different land parcels. Separate flow diagrams should have been provided for each land parcel. It is anticipated that the approach used will underestimate the transport impact on Land Parcels B and C, particularly Land Parcel B, which includes the main substation and BESS. The assumptions are not adequate for the generation of an accurate worst case scenario,

and thus fail to meet the requirements of using the Rochdale Envelope, which mandates robust consideration of the worst-case scenario.

In PEIR Volume 2, Chapter 11 (Traffic and Transport), two-way daily traffic assignments for each link are presented in Table 11.19, with the links defined in Volume 3, Figure 11.2 (*Highway Links across the Study Area*). Within the developable areas, assigned HGV numbers range from 50 to 183 per day across different links, as illustrated in Figure T&T 1. However, Table 11.13 (*Forecast HGV Deliveries (one-way) and Workers during the Construction Phase*) lists only 75–84 HGVs per day for the developable areas and Grid Connection Corridor combined (equating to 150–168 HGV movements per day, as noted in paragraph 11.5.8), with 25 one-way movements allocated to each of Areas A, B and C. No explanation is provided for how these figures were derived or how they relate to the higher link-based assignments. Consequently, the projected construction HGV data are inconsistent and cannot currently be considered reliable. Furthermore, in the absence of any information on the phasing of the development, it is not possible to identify the duration of the construction traffic levels on any one link.

Figure T&T 1: Assigned HGV numbers

Turning to other traffic, and in particular worker movements, Table 111.14 (sic – should read 11.14) indicates a total number of workers for Land Parcels A, B and C of 813. However, in paragraph in 11.2.79 (and also in para. 3.10.7 of PEIR Volume 1 Chapter 3 (The Scheme)), it refers to "700 construction workers associated with the Developable Areas". In section 11.5.9 it states that *"the Construction worker forecasts have been derived with reference against other similar scale solar schemes going through the DCO consenting process or consented by the Secretary of State"*. These comparator schemes have not been identified and the comparison methodology is not explained. In consequence, these figures cannot currently be relied on. Furthermore, in the absence of any information on the phasing of the development, it is not possible to understand the likely fluctuations in worker movements between different locations, which will affect maximum movements on each link.

Information on timing of traffic movements is given in paragraph 11.2.79 and Table 111.16 (sic – should read 11.16) and shows that HGV movements are predicted to be evenly spread

over an 8-hour period and worker movements largely over a 2-hour period at each end of the day.

Strategic Highway Network

The proximity of the strategic highway network is claimed by Kingsway as a strength of the site selection for the proposal. As expounded below, access routes off the strategic network negate this claimed benefit, but there are issues of concern even within it. A significant example is the indirect routing from the A14 along link 27. The increase in traffic on this is forecast to be 228 HGV's (two-way), 114 in either direction. This traffic would all have to pass through the Six Mile Bottom junction, which is busy at peak times and is somewhat constrained by the poor road layout close to the junction.

Access Routes

Potential access routes to each Land Parcel are described in PEIR Volume 2, Chapter 11 (Traffic and Transport), paragraphs 11.3.6 onwards. Practical disruptions of concern to residents, evidenced in a recent KSCA Community Survey (Appendix A), of 211 residents, included construction traffic (18 mentions) and heavy vehicle movements on unsuitable rural roads (16 mentions), reflecting widespread anxiety about the capacity of local infrastructure to cope with large-scale construction activity. One pertinent comment was as follows:

> *I'm not entirely opposed to progress in our world but our little village hasn't got the road network to cope with the added traffic this development will for sure need for its construction. I'm a HGV driver myself and have been involved in delivering the products required for construction of these solar farms and I've seen firsthand trucks hitting trees, sinking in verges and numerous damage to hedges and signposts. The construction of this farm, if it goes ahead, will destroy the beauty of our village by the delivering of all the equipment required for this. It won't just be a couple of trucks. It will be hundreds ranging from 45ft low-loaders with plant equipment to 45ft curtain-siders delivering the panels. They will try and get local farms to take delivery of these goods and take them to site on smaller vehicles, but the increase of traffic will destroy the village roads and verges take it from me, the peaceful lifestyle we have will be gone for many years to come.*

Many of the proposed access routes are single or narrow double track (but not wide enough to merit a central white line, see Figure T&T 2a), some with 90 degree bends as shown in Figure T&T 2b. Most of them have soft, easily damaged verges (which are valuable wild flower sites), few passing places and are not in good repair.

Figure T&T 2a Six Mile Bottom Road is a narrow double track road with soft verges, deep drainage ditches and few passing places.

Figure T&T 2b: Google map showing Six Mile Bottom Road and 90 degree bends, which are unsuitable for HGV traffic at volume

Comments on specific sections of the proposed access routes of this are made below.

Valley Farm Road (Link 18)

Paragraphs 11.3.11 and 11.3.12 refer to the use of Valley Farm Road for access to Land Parcel B but make no reference to the condition or capacity of the junction with the A11. It is relevant to note that concerns were raised in 2009 regarding increased traffic at this same junction during consideration of a planning application for an extension to the Camgrain facility, which projected a maximum of 500 two-way HGV movements per day (South Cambridgeshire District Council 2009[24]). Although the application was ultimately approved, this was only with restrictions on HGV management, and even then, the projected traffic was considered only marginally acceptable.

Given the substantially higher baseline traffic flows on the A11 some 16 years later, any major increase in HGV movements is likely to be unacceptable without significant upgrades to the junction's slip roads, which are currently very short. Even the lower Kingsway Solar estimate of 50 additional HGVs per day would materially increase risks for A11 traffic. The higher projected figure of 183 HGVs per day (equating to roughly one every three minutes) would present serious safety concerns. PEIR Volume 3, Figure 11.4 (Personal Injury Collisions) already identifies a cluster of accidents at this location, including one classed as 'serious'. Regularly observed damage to roadside infrastructure suggests that many further incidents go unreported.

If it is hoped that the junction can be used as is, without any extension to the slip lane or merge taper, then it would be anticipated that Highways England would insist on a Departure from Standards process, which would include a full safety assessment of the increase in traffic flows. An independent Stage 1 Safety Audit would be expected before DCO submission.

Six Mile Bottom Road (Links 24 and 23)

An alternative access route to Land Parcel B is identified in paragraph 11.3.13 of PEIR Volume 2, Chapter 11 (Traffic and Transport), via Six Mile Bottom Road. The only description provided is that this road "routes east–west along the northern boundary of Developable Area B and is subject to the national speed limit." However, the PEIR fails to acknowledge that this is a very narrow rural lane with limited passing places and several sharp bends, making it entirely unsuitable for frequent HGV movements. These omissions raise serious safety concerns for both construction traffic and existing road users. Photographs presented in Figure T&T 3 illustrate the constrained nature of this road. Overall, this section of the PEIR appears to have been prepared without adequate on-site assessment or appreciation of actual road conditions.

[24] South Cambridgeshire District Council, Report to Planning Committee, ref S/0506/09/F, July 2009 accessed 20/10/25 https://scambs.moderngov.co.uk/documents/s37110/0506%20-%20Great%20Wilbraham%20West%20Wratting.pdf

Figure T&T 3: HGVs meeting at /// excellent.decoded.verbs on the Six Mile Bottom road (29 September 2025)

Brinkley Road and Grange Road (Links 28-32)

The proposed access along the Brinkley road and south down Grange Road (links 28, 29, 31 and 32), is to a large extent the same access as for the Brinkley Woodland Cemetery which it passes in Link 31. This is not mentioned anywhere as a receptor. The indicated levels of traffic would not only have a severe detrimental effect on the tranquillity of the cemetery, but would also impact access for funeral corteges.

Towards the end of this set of links, the route marked as for use by HGVs actually shares the route taken by the ancient national long distance path the Icknield Way, which at this point is also part of the European long distance path E2. This is a narrow single track road. No mention is made of the disturbance and risks to walkers and horse riders associated with this even in considerations of 'Fear and Intimidation' and indeed the magnitude of impact for Non-Motorised Users (NMUs) given in Table 11.21 for Grange Road is 'Very Low'. Once again this shows a lack of knowledge of the area.

Brinkley Road and B1052 and Brook Lane (Links 30 and 41)

The routes described in 11.3.20 and 11.3.21 are not marked in Figure 11.3 as for access by HGVs, but 11.3.22 describes access to "*The smaller part of Developable Area C"*. Here it is stated that *"a temporary haul road would be required during construction for HGV access along the existing byway in order to avoid routeing HGVs through West Colville*" (sic). This byway (Brook Lane) consists of a narrow track with a tributary to the River Stour on one side and a ditch on the other and is prone to flooding. Photographs are presented in Figure T&T 4. Yet again it is evident that the authors are not familiar with local conditions nor environmental sensitivities.

Figure T&T 4: Brook Lane in summer and winter

Internal Road Construction

It is noted in paragraph 11.4.7 of PEIR Volume 2, Chapter 11 (Traffic and Transport) that internal roads may be created within the Land Parcels. However, as no indication is provided of their proposed locations, alignments, or construction methods, it is not possible to assess the likely impacts on receptors. This omission is significant, as potential effects on biodiversity, PRoW and archaeological heritage could be substantial. The environmental implications of constructing these internal roads, including land take, surface drainage, habitat disturbance and the additional HGV movements required for their formation, must be fully assessed and presented transparently.

Abnormal Indivisible Loads (AIL) Movements

Very little information is provided on Abnormal Indivisible Load (AIL) movements in PEIR Volume 2, Chapter 11 (Traffic and Transport), other than the statement that seven AIL deliveries are expected for the *"PV Area,"* with movements along the Grid Connection Corridor anticipated to be *"more frequent."* Paragraph 11.2.7 notes that *"a separate AIL study by an AIL specialist has been commissioned. This study will be used to inform the ES."* As this study is not yet available, there is no opportunity for consultees to review or comment on potential AIL impacts at this consultation stage. Movements associated with the substation in Land Parcel C, located north of West Wratting and west of Weston Colville, are likely to be of greatest concern, given the narrow rural road network, proximity to residential areas and potential conflict with non-motorised users.

Transport during Operation

PEIR Volume 2, Chapter 11 (Traffic and Transport) pays little attention to traffic movements during operation, and states in 11.2.17 that *"Traffic movements associated with the operation and maintenance phase are expected to be significantly below those that may occur during the construction phase.* ***Accordingly, traffic movements during the construction phase provide a focus for the assessment of the Scheme's transport effects as set out in this Chapter of the PEIR"*** (our bold). There are, however, no data or modelling to support the assumptions in 11.4.4 that *"HGV movements are anticipated to be low across the 40-year operational phase"* or in Table 111.23: Summary of Preliminary Residual Effects "*Therefore, as predicted traffic levels owing to the operational phase are very low, operational effects are predicted to be negligible and have not been specifically assessed".*

Of concern is the inconsistency between statements regarding equipment lifespan and replacement across different sections of the PEIR. These discrepancies have direct implications for traffic movements, as the frequency of equipment replacement—particularly of BESS units and PV panels—will affect the volume and duration of heavy vehicle activity throughout the 40-year operational period. Paragraph 11.5.32 states that *"Across the 40-year lifetime of the Scheme, it is expected that alongside the regular maintenance of equipment, infrastructure such as batteries will require replacement, as a worst-case scenario, every 10 years. Solar panels will continue to work at a degraded rate, with replacement undertaken as required."* However, paragraph 16.4.38 of PEIR Volume 2, Chapter 16 (Other Environmental Topics) conflicts with this, stating that *"Battery Energy*

Storage System (BESS) units within the Developable Areas may require replacement every 5 to 15 years."

Similarly, for PV panels, paragraph 3.11.3 of PEIR Volume 1, Chapter 3 (The Scheme) states that *"PV panels have a typical operational lifespan of 25 to 30 years,"* implying that full or partial replacement would occur at least once within the planned 40-year operational period. This aligns with paragraph 16.4.37, which acknowledges that "*PV panels would be required to be repaired, refurbished and replaced over the planned 40-year operational lifespan. PV panels have a typical operational lifespan of 25 to 30 years, and it is anticipated that replacement would be phased to maintain export capacity and ensure potential impacts of maintenance activity are managed."*

Thus, although operational traffic flows will inevitably be lower than during construction or decommissioning, they will still be significant. It is unacceptable that no predictions have been provided at this consultation stage, with all details deferred to an Outline Operational Environmental Management Plan (OEMP) that will not be available until DCO submission.

Impacts on NMUs

Inadequate consideration is given to the effects on NMUs throughout PEIR Volume 2, Chapter 11 (Traffic and Transport). For example, Section 11.7 concludes that no "*Likely Significant Residual Effects"* are anticipated for any NMU routes, including the Icknield Way and the byway running along the northern boundary of Land Parcel B, which intersects with Valley Farm Road. Given the expected levels of construction traffic and the frequency of HGV movements on these routes, this conclusion appears unrealistic and underestimates the potential safety and amenity impacts on walkers, cyclists and horse riders.

Cumulative Effects

An analysis of cumulative effects is promised in paragraphs 11.2.15 and 11.2.72, but has not been carried out. It is noted that this will only look at other nearby developments that have planning consent or are in the planning process "*at a level of detail proportionate to the information available*". The primary source of heavy vehicle movements in the area, namely farm traffic, is not intended to be included and this is a significant omission.

KSCA Assessment and Position

While paragraph 4.3.21 of PEIR Volume 1, Chapter 4 (Alternatives and Design Evolution) lists proximity to the A11 as a key reason for selecting the Kingsway Solar site, there has been inadequate consideration of the suitability of A11 junctions, the adequacy of connecting rural roads or the potential interactions between construction traffic and sensitive receptors along these routes. When these factors are properly considered, it becomes clear that the site is poorly located from an access and transport perspective.

The deferral of the Construction Traffic Management Plan (CTMP), the Outline Operational Environmental Management Plan (Outline OEMP) and the Abnormal Indivisible Load (AIL) assessment to the ES stage, due only at DCO submission, has prevented any meaningful consultation on access and traffic impacts. Furthermore, the PEIR does not demonstrate that

the stated HGV estimates represent a genuine “worst-case” scenario, as required under the Rochdale Envelope approach. This omission undermines the robustness of the transport assessment and its compliance with EIA best practice.

What KSCA Asks from Kingsway Solar

- **Provide consistent and verifiable predictions of traffic flows**, supported by transparent data and clear assumptions. These should provide more detail and clearly show the impact on each link.
- **Provide information on phasing of construction** and the effects on traffic flows.
- **Provide a swept path analysis of the rural access routes** to identify areas where two HGVs could not pass and any sharp bends where it would be likely that an HGV would take up both sides of the road.
- **Provide a full list of improvements** that would be proposed to facilitate construction vehicles (funded by the developer).
- **Assess the suitability of all major junctions and minor roads** proposed for site access and present the justification for their selection. These assessments must include consideration of:
    - The design and capacity of the A11–Valley Farm Road junction
    - The suitability of Six Mile Bottom Road for HGV and AIL traffic
    - Potential impacts on Brinkley Woodland Cemetery and associated access routes
    - Effects on NMUs at all intersections with access routes, including existing roads and any new internal roads
- **Provide a Road Safety Audit** of all construction routes
- **Present detailed plans for any internal road construction**, with assessment of impacts on biodiversity, Public Rights of Way (PRoW), archaeological heritage and the additional traffic and carbon emissions associated with construction.
- **Define and map the proposed routes** for Abnormal Indivisible Load (AIL) movements
- Provide an assessment of operational traffic flows**, to include all operational activities** including worst case estimates of PV and BESS replacements.
- **Undertake a cumulative impact assessment,** including farm traffic, other consented developments and those currently in the planning system, and impacts from flooding and heavy clay deposits from construction traffic.
- **Provide a binding undertaking to carry out regular condition surveys** throughout the construction period and **a maintenance regime** should road conditions worsen (funded by the developer)

Public Rights of Way (PRoW) and Non-Motorised User Impact Analysis

Overview

KSCA has reviewed information relating to Public Rights of Way (PRoW), which is dispersed across several sections of the PEIR, including Volume 1, Chapter 2 (Site and Context), Volume 1, Chapter 3 (The Scheme), Volume 2, Chapter 7 (Landscape and Visual Amenity), Volume 2, Chapter 11 (Traffic and Transport) and Volume 2, Chapter 14 (Socio-Economics and Population).

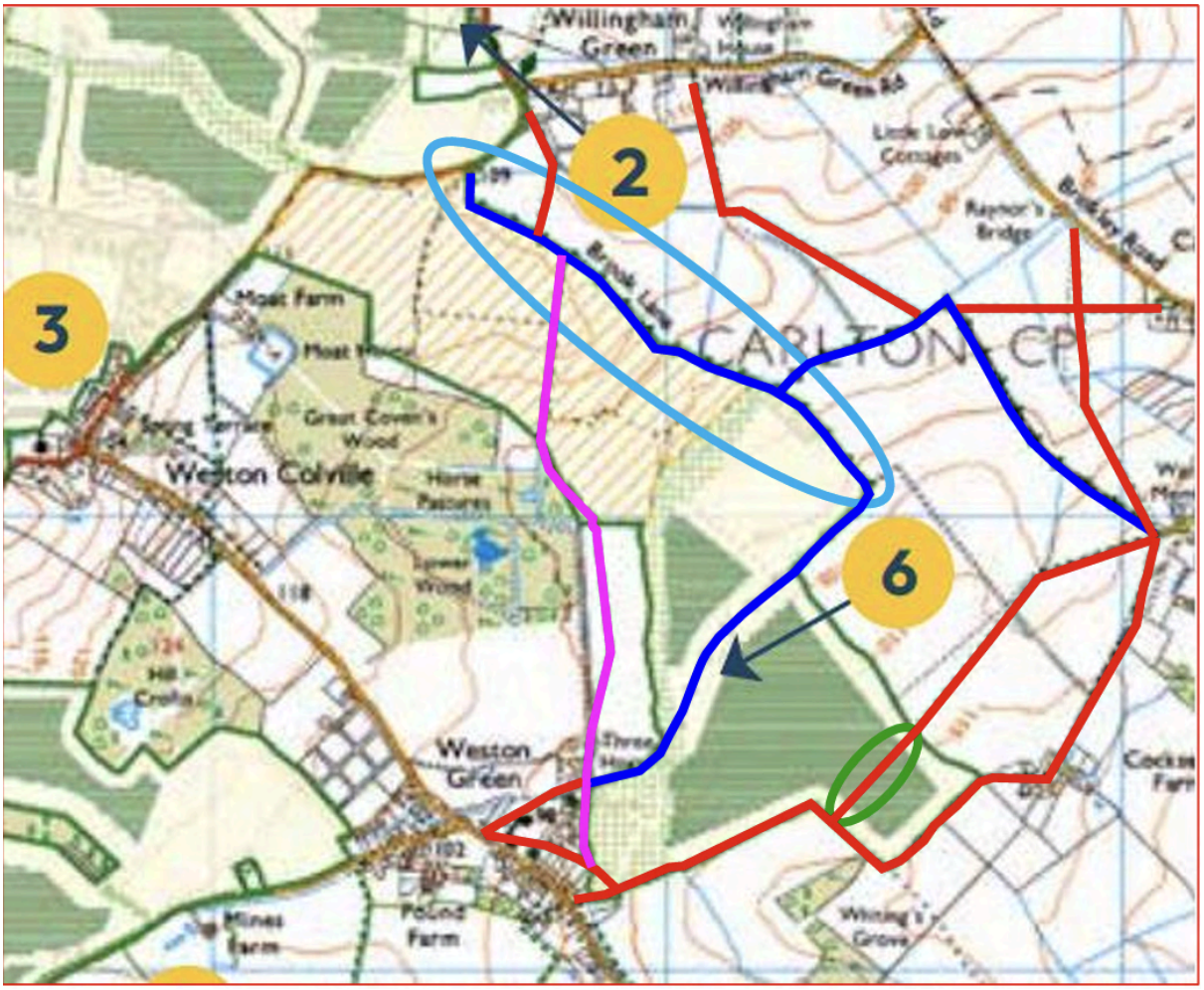
This fragmented presentation makes it difficult to form a coherent understanding of how the proposed development will affect the accessibility, character and visual experience of local routes. KSCA notes the absence of a consolidated assessment of PRoW impacts, including changes to views, tranquillity, safety and recreational value and calls for a single, comprehensive appraisal of these effects supported by clear mitigation measures.

Public Rights of Way (PRoW) will be significantly affected during both construction, operation and decommissioning. During operation, users will experience adverse visual and noise impacts, while during construction and decommissioning these effects will be compounded by increased noise, interactions with heavy construction traffic and likely diversions. One permanent footpath closure is also proposed.

Disruption to PRoW

According to paragraph 14.5.64 of PEIR Volume 2, Chapter 14 (Socio-Economics and Population), "*at this preliminary stage it is only anticipated that one PRoW (PRoW 251/18) would experience changes in accessibility as a result of the long-term operational infrastructure (Developable Areas). This would occur during the construction phase and continue during the operational phase.*"

However, paragraph 14.5.65 makes clear that this change in accessibility in fact means closure: *"PRoW 251/18 is a footpath, 912 m in length... **Approximately 260 m of 251/18 would be closed** at the north-west of the existing alignment of 251/18 prior to its junction with PRoW 40/15."* Identification of this section requires cross-referencing the County's definitive PRoW map, as it is not clearly shown in the PEIR. KSCA has illustrated this for local footpath users (PRoW 1):



PRoW 1: A map highlighting the permanent footpath closure. This is an important local footpath and part of a popular circular walk that is maintained by the local community. At the Weston Green end of the footpath is a ford, which frequently floods in winter.

This omission gives the impression that Kingsway Solar is attempting to downplay the extent of the closure, an impression reinforced by the Consultation Information Booklet (page 15), which states that *"**no permanent closures** of Public Rights of Way (PRoW) would be required."*

The justification offered in paragraph 14.5.66 — that an alternative 1,848 m route exists via PRoW 251/18, 251/20 and 40/16, only 220 m longer than the affected route — fails to recognise the true community value of local footpaths to local people. They are not just convenient routes from A to B, but are used for recreation. The loss or diversion of a section of this circular walk therefore represents not just a practical inconvenience but a meaningful reduction in local amenity and landscape enjoyment.

Disruption of PRoW during Construction

Disruption to PRoW during construction is discussed in paragraphs 14.5.61–14.5.63 of the PEIR, where the significance of impacts is consistently downplayed. The text suggests that *"existing PRoW that interact with the Site would be kept open as far as practicable and safe*

to do so," and that *"some PRoW may need to be temporarily diverted or managed in terms of access,"* with such diversions described as "limited" in duration. It concludes that "overall, there is likely to be a minor adverse, temporary residual effect on community access (PRoW) and their users (WCH), which is considered to be not significant."

However, all practical detail is deferred to a series of documents yet to be written — the *Outline CEMP, CTMP, PRoWMP* and *LEMP* — meaning that the mitigation measures cannot be scrutinised at this stage. Despite this lack of definition, in paragraph 14.7.46 Kingsway Solar asserts that *"changes in PRoW connectivity... are limited in location, scale and significance," with only "short-term, managed closures or diversions during construction"* and *"one long-term closure of a PRoW during operation."*

This confidence is misplaced. Without the promised outline plans, there is no verifiable evidence to support these claims or to demonstrate that access, safety, or amenity for local walkers, riders and residents can be adequately maintained during construction and decommissioning periods.

Figure PRoW 2 below identifies the PROWs that pass close to proposed infrastructure and are therefore likely to experience significant disruption, particularly during the construction phase. Given the number and proximity of these routes, KSCA contests the PEIR's optimistic assessment and considers it unacceptable that all details are deferred to later outline plans. The lack of route-specific information prevents meaningful consultation or assessment of access, safety and amenity impacts. At a minimum, Kingsway Solar should provide indicative construction-phase impact assessments for each PRoW highlighted in Figure PRoW 1, including anticipated closures, diversions and mitigation measures.

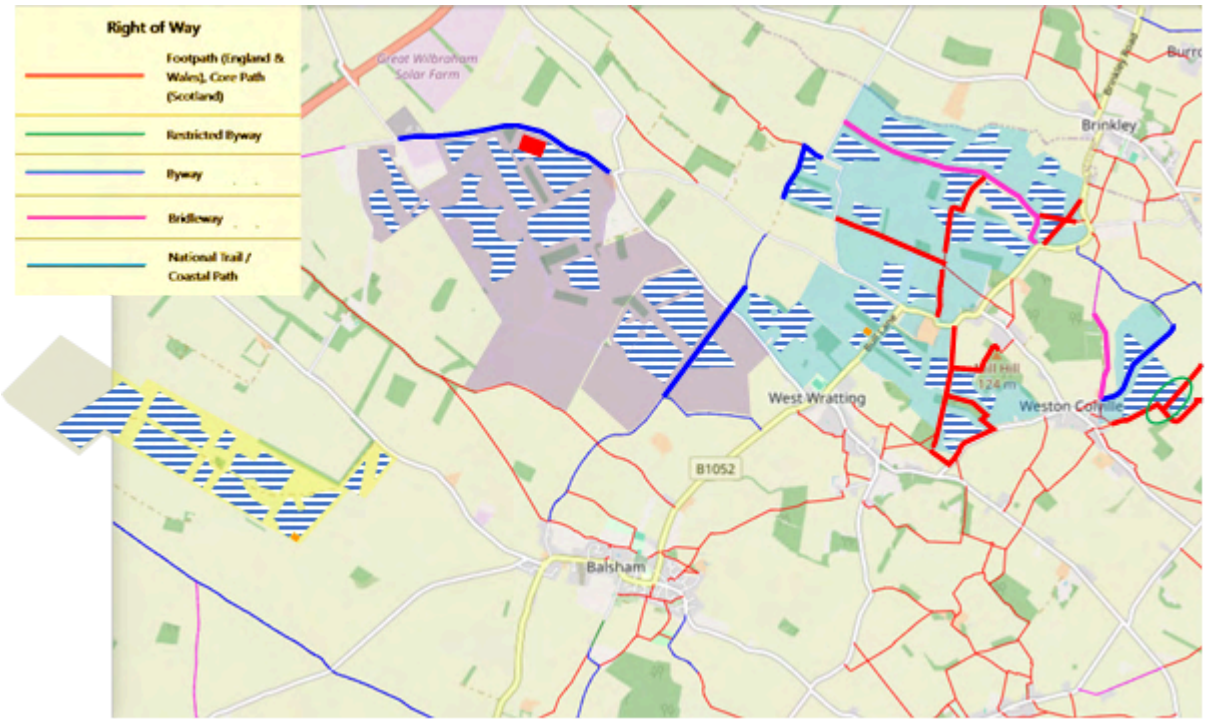


Figure PRoW 2: PRoW in the proposed development area, with those close to infrastructure highlighted (thicker line).

Visual Impacts on PRoW

A wider and longer-term impact on PRoW relates to visual amenity, which is only partially acknowledged in PEIR Volume 2, Chapter 7 (Landscape and Visual Amenity). From local knowledge, however, the viewpoints selected for assessment are poorly chosen and fail to represent the real user experience along key PRoW. In particular, they overlook sections offering open views toward proposed solar infrastructure and substations. This shortcoming ignores the advice provided by West Wratting Parish Council in their response to the EIA Scoping Report, where specific, more representative viewpoints were recommended. These have not been adopted. Figure **PRoW 3** below illustrates these discrepancies and highlights the locations where visual impacts on PRoW users are likely to be underestimated.

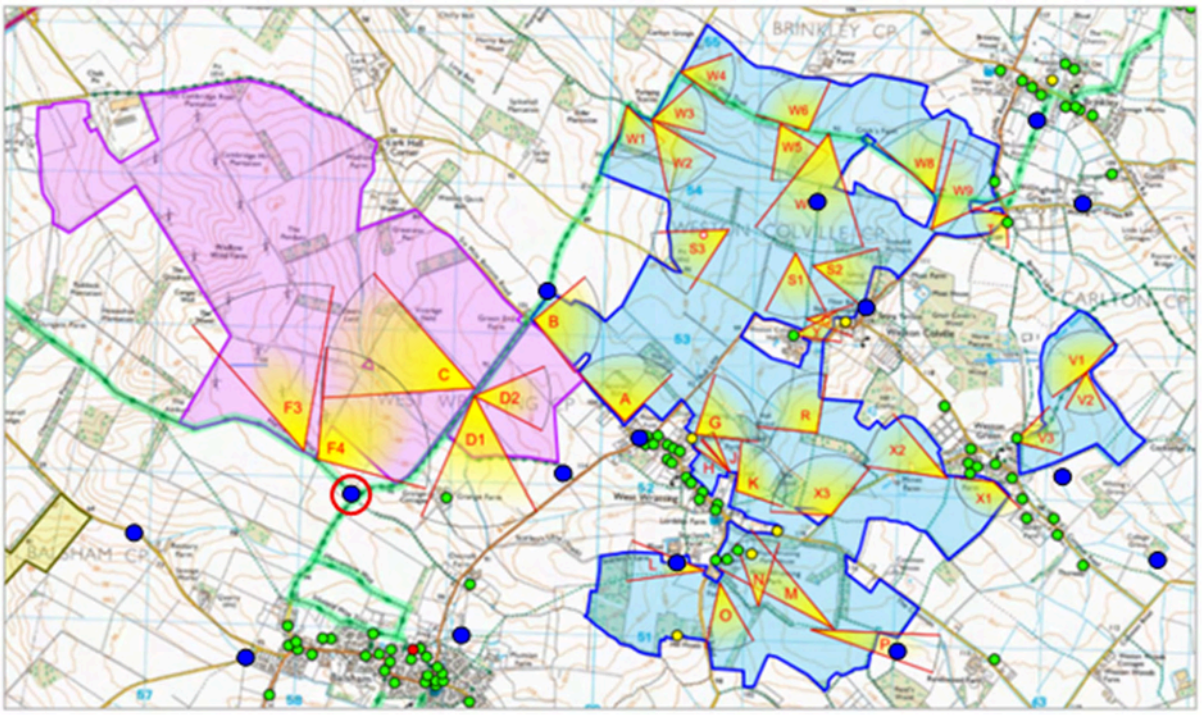


Figure PRoW 3: Viewpoints advised by West Wratting Parish Council, with those selected by Kingsway Solar superimposed (blue spots). Viewpoint 30 circled in red.

Furthermore, the baseline photographs presented in PEIR Volume 3 Figure 7.14 Winter Baseline Photography do not reflect the full impact of the solar panels on the view. A photograph taken from Viewpoint 30 is presented in Figure PRoW 4 and this shows that only part of the affected view is covered by the Kingsway Solar photographs. This issue is discussed in more detail in the section on *Visual Impact Analysis*. Nevertheless, in paragraph 7.5.7, Kingsway Solar admits that:

"It is anticipated that the Scheme would result in likely significant effects (major / moderate or greater) on the following visual receptors. All effects are adverse unless otherwise stated, long term in duration but reversible."

This includes:

- Users of the PRoW network north and west of Burwell (Vp 20, 35 and 37);
- Users of the PRoW network north and west of Developable Areas A and B (Vp17, 18, 27, 31 and 34);
- Users of the PRoW network south of Balsham (Vp 7, 13, 14 and 15);
- Users of the PRoW network north of Balsham (Vp 2, 6, 11, 29, 30, 32 and 33);
- Users of the Devils Ditch (Vp 38);
- Users of the PRoW network within Area C (Vp 8);
- Residents located to the north and east of Burwell (Vp 23 and 24);
- Residents located to the east of Developable Area C (Vp 3, 4 and 26);
- Residents located to the south and west of Developable Area C (Vp 5 and 9); and
- Users of the road network to the north and west of Burwell (Vp 21 and 22).

Figure PRoW 4: View from Viewpoint 30. The photograph presented in PEIR Volume 3 Figure 7.14 Winter Baseline Photography only covers the region marked by the red bracket, thus failing to show the true impact.

This demonstrates that, even within its own assessment, Kingsway Solar recognises significant adverse visual effects, yet the limited photographic coverage provided does not allow consultees to fully appreciate the true extent of these impacts. It should also be noted that the effects for horse riders are likely to be greater, owing to their elevated viewing position. This factor must be properly taken into account when assessing visual impacts on byways and bridleways, where riders experience wider and more open views across the proposed development area.

Traffic and Transport

The impacts of traffic (which are of greatest significance during the construction phase) on PRoW should be addressed in Volume 2, Chapter 11: Traffic and Transport. In this chapter, various sections of road likely to be used for construction access are identified as "links." Table 11.21 highlights those links where the magnitude of impact on non-motorised users (NMUs), for both daily traffic and daily HGV movements during the construction stage, is assessed as either high or medium. However, several examples indicate that the presence

and interaction of PRoW with these road links have not been fully considered in these assessments.

These include:

- Link 31 shares the route of the Icknield Way and E2, both important long-distance walking routes. According to paragraph 11.2.79 (bullet 12), this link is expected to experience peak HGV traffic of 50 vehicles per day during the 8-hour period between 09:00 and 17:00. This represents around 6 HGVs per hour, or one every 10 minutes. Including other vehicles, total traffic movements are 449. Nevertheless, the categories for 'NMU Amenity (HGVs)' and 'Fear and Intimidation' are both classed as 'Very Low', which appears inconsistent with the level of heavy vehicle activity on this route.
- Link 41 also crosses the Icknield Way and E2 and the quoted vehicle movements (50 HGV; 446 total) are similar to those for Link 31. This link also interacts with five other footpaths that terminate at the road, where walkers would normally continue along the road for a short distance. Despite this, Link 41 is not considered sufficiently affected to be included in Table 11.21.
- Link 23 forms the natural continuation of the byway running around the northern border of Land Parcel B. It is currently a quiet road with verges that allow pedestrians to step aside for occasional passing vehicles and connects to the Icknield Way / E2 and West Wratting. This byway and link 23 form part of a popular circular walk,[25] continuing clockwise along the Icknield Way and then Fleam Dyke.The peak construction traffic predictions for this link are 100 HGVs and 947 total vehicles, which would effectively prevent safe pedestrian use. Nevertheless, both 'NMU Amenity (Total Vehicles)' and 'Fear and Intimidation' are classed as 'Very Low'.
- Link 18 crosses the footpath/bridleway running around the northern edge of Land Parcel B. Predicted traffic levels of 183 HGVs and 1,132 total vehicles, in addition to local traffic and vehicles accessing the grain store, would make this an extremely busy junction — roughly one HGV every 2.5 minutes over an 8-hour period, and for all vehicles, one every 25 seconds. Nevertheless, the 'NMU Amenity (HGVs)' and 'Fear and Intimidation' are both classed as 'Very Low'.
- There are also several footpaths along Links 30 and 41 that terminate at the access road, where walkers would normally continue along the road for part of their route.

In paragraph 11.3.22 it states that *"The smaller part of Developable Area C can potentially be accessed off the B1052 Brinkley Road 100m south of Willingham Green, however a temporary haul road would be required during construction for HGV access along the existing byway in order to avoid routeing HGVs through West Colville."* This refers to Brook Lane, a narrow, tree-lined track bordered by a ditch on one side and a tributary of the River Stour on the other, which regularly floods during winter. Images are presented in Figure T&T 4 in the section on *Traffic and Transport*. Conversion of this byway into a haul road would be wholly impractical given its width, condition and environmental sensitivity and Kingsway Solar should reconsider this proposal.

[25] Ramblers' Association (Cambridge Group) 'Walks in South Cambridgeshire' Third edition 2000

Operational Noise

An issue entirely overlooked by the PEIR is the effect of operational noise on PRoW. Noise generated by inverters, transformers and the BESS will significantly diminish the recreational amenity value of nearby PRoW and, for horse riders, could present a safety hazard depending on the horse's temperament. However, according to David Vernon, only static receptors are considered within the assessment. He explained that PRoW users are treated as "transient" because they would only be exposed to noise for a short duration while passing through. Consequently, operational noise impacts on PRoW have been excluded from assessment, and because no residential properties lie within 300 m of the BESS or substations, Kingsway Solar has categorised the residual effect as negligible — a conclusion that fails to reflect real-world use of these rural routes.

As noted in the *Noise and Vibration* section, this assumption is not credible. A byway runs directly alongside the main BESS compound and modelling for comparable battery schemes indicates that noise levels can take up to 1 km to reduce to around 30 dB (e.g. *Whitelee Planning Support for Battery Storage – Noise Assessment*; *Tealing Battery Energy Storage System Facility Noise Impact Assessment Report*; *Crabbs Green Battery Energy Storage Noise Assessment for Planning*). Walkers or riders could therefore be exposed to continuous inverter or transformer noise for at least 45 minutes when approaching, passing and leaving the compound. Approximately 250 inverters are proposed across the site (PEIR Volume 1, Chapter 3, Table 3.1), generating constant background noise along significant stretches of the PRoW network, including the Icknield Way and other local routes (see Figure PRoW 2). This would degrade the tranquillity and enjoyment of these routes, with an NMJ potentially exposed to noise for considerable periods of time. Detailed operational noise contour mapping is required to assess these effects properly. Its absence represents a major deficiency and further evidence that this PEIR has been issued prematurely.

National and International Long-distance Footpaths

The presence of national and international long-distance footpaths (Figure PRoW 5) is acknowledged in Volume 1, Chapter 2 Site and Context and in Volume 2, Chapter 14 Socio-Economics and Population, but no assessment is provided of how the scheme will affect them, nor is there any indication of proposed mitigation. As noted above, the Icknield Way/E2 will cross main access links in two places and shares a short section of a primary access route elsewhere. It also passes through areas containing solar panels for significant distances and will be exposed to operational noise. The principal adverse effect on the Harcamlow Way will be visual, with views of infrastructure to the north being particularly intrusive from the section along Fleam Dyke. The effects of the inter-array connection between Land Parcels A and B cannot be assessed, as Kingsway Solar has provided no indication of how this crossing will be achieved, although an adverse impact is highly likely.

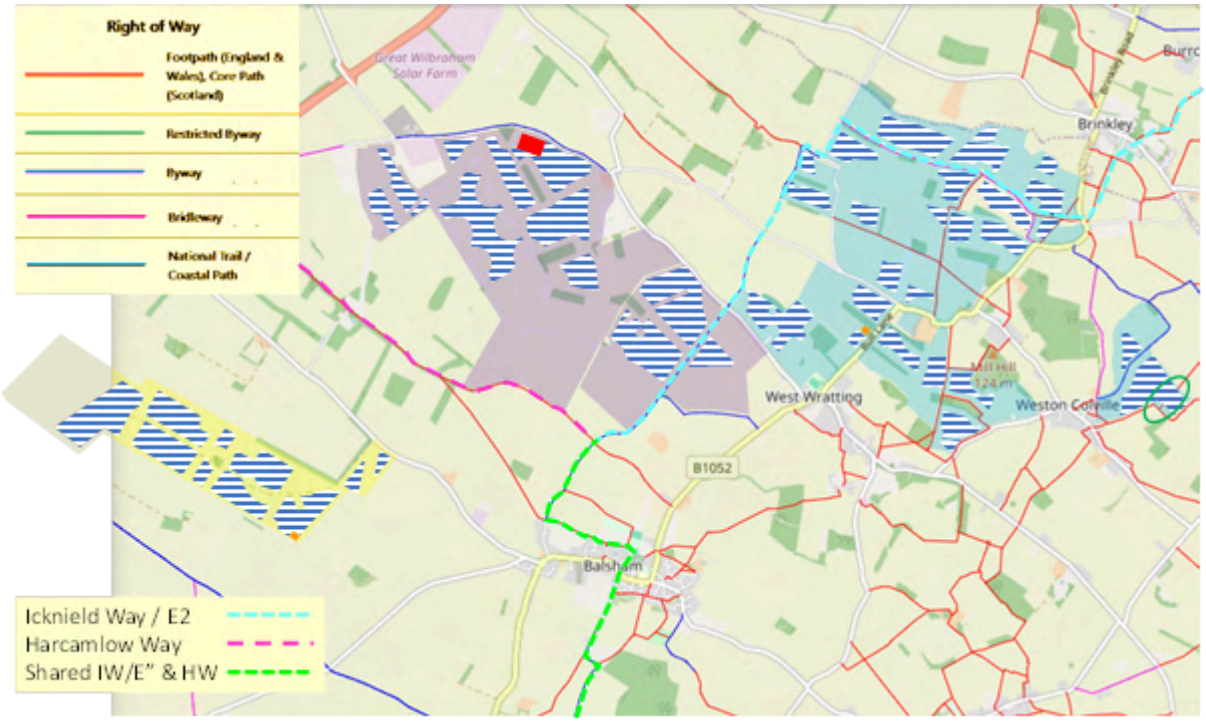


Figure PRoW 5: PRoW in the proposed development area, with national and international long distance paths highlighted

KSCA Assessment and Position

In summary, Kingsway Solar appears to downplay the impacts of the development on PRoW and their users. Despite claims in the Consultation Information Booklet that *"feedback highlighted the importance of protecting existing PRoW and minimising visual impact,"* there is no evidence that these concerns have been seriously addressed. Assessment and mitigation of PRoW impacts have been deferred to an Outline PRoW Management Plan, which will not be available until the DCO submission stage and will still only be in outline form. Moreover, this plan will not consider operational noise effects. As a result, the community is prevented from providing informed feedback on how the scheme will affect local paths and recreational use during this consultation.

What KSCA Asks of Kingsway

- **Provide an indication of the likely impact on all PRoW highlighted in Figure PRoW 2**. This should include the individual issues detailed below, as well as an assessment of cumulative effects arising from all contributing factors.
- **Provide an accurate representation of the visual impact of the scheme on PRoW**, using revised viewpoints that properly account for receptor height, including effects on NMUs and horse riders where relevant.
- **Include a clear explanation of anticipated interactions between construction traffic and NMUs** for all PRoW, together with defined mitigation measures.

- **Assess operational noise impacts on PRoW**, as although these may be treated as ‘transient receptors’, the dispersed nature of noise sources across the landscape means that users are likely to experience sustained exposure over extended sections.
- **A detailed plan for mitigating adverse effects** on national and international long-distance paths is also required.
- **Identify an alternative to converting Brook Lane** to a haul road.
- **Reconsider the proposed closure** of part of Footpath 251/18.

Light Pollution Risk (Operational)

Overview

At statutory consultation, Kingsway Solar has not provided the information needed to judge night-time lighting impacts. The PEIR identifies receptors and outlines an approach, but it does not include a Lighting Strategy, does not specify luminaires or controls and defers detail to the Environmental Statement (ES).

The assessment of lighting and visual impacts has drawn on several key sections of the PEIR, including Volume 1, Chapter 3, which outlines the proposed scheme parameters for lighting and associated infrastructure; Volume 2, Chapter 7 (Landscape and Visual), which references night-time amenity effects; and Volume 2, Chapter 16 (Cumulative and Combined Effects).

Current maps show this is a low-light, dark-sky landscape valued for its tranquillity and rural character (see Figure PLR 1 below). Several long-distance and local PRoW, including the Icknield Way and routes linking Weston Colville, Balsham and West Wratting, cross the area and are used for walking, riding and stargazing. Any new lighting or CCTV could harm this experience, yet no Lighting or PRoW impact assessment has been provided.

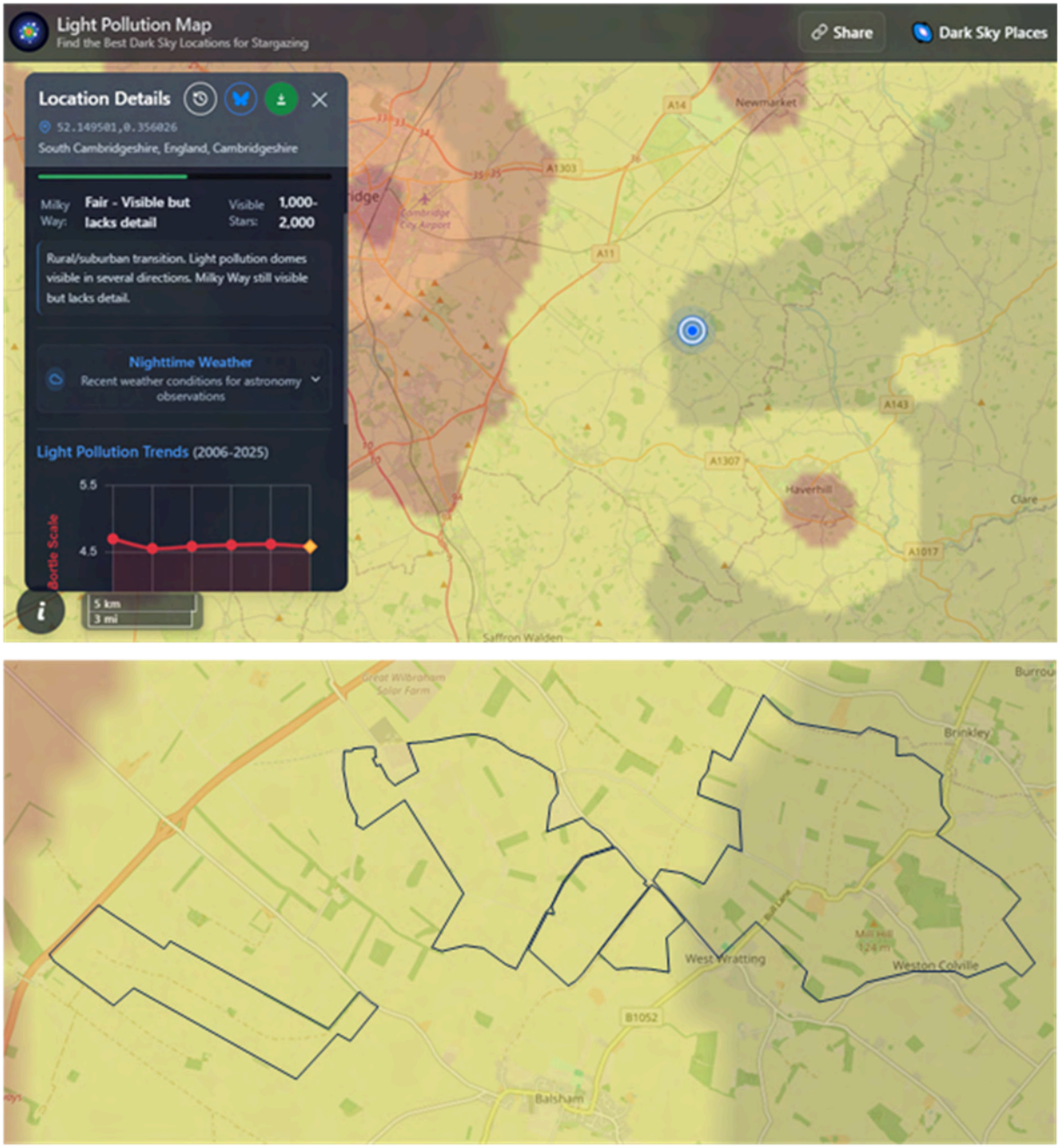


Figure PLR 1: Light pollution map from https://lightpollutionmap.app/?lat=52.149501&lng=0.356026&zoom=11, accessed19/10/25. Note reference to visibility of the Milky Way *"Fair - Visible but lacks detail"*

Evidence of low light pollution is demonstrated by photographs of the Aurora Borealis, captured in October 2024 from both Balsham and Weston Colville (Figures PLR 2 and 3), an event visible only in areas with minimal night-sky illumination (see photos). Introducing new sources of artificial light would risk permanently degrading these rare dark-sky conditions and diminishing opportunities for night-time landscape enjoyment and astronomical observation.

Figure PRL 2: Aurora Borealis from Weston Colville 10 October 2024

Figure PRL 3: Image of Aurora Borealis from Balsham on 10 October 2024 also showing Jupiter (lower right) and the Pleiades (mid right).

Incomplete and Deferred Assessment of Lighting and Night-Time Effects

The PEIR provides only high-level information on security and operational lighting, noting that mitigation “may include screening or layout refinement” but giving no technical parameters such as pole height, spectrum, lux levels, curfews, or motion activation.

This approach is inadequate for consultation. Without basic design data or night-time visualisations, consultees cannot judge how bright the site will be or how dark-sky conditions will be protected around homes, farms, PRoW, or ecological corridors. By deferring lighting design to future outline plans, the effectiveness of mitigation and compliance with dark-sky and ecological standards cannot be tested. The cumulative night-time impacts from solar arrays, substations and the BESS compound therefore remain completely unquantified.

What KSCA Asks from Kingsway Solar

- **Publish an Outline Lighting Strategy** for consultation, including a lighting-zone plan, luminaire and pole schedule, maximum lux at boundary, warm-white spectrum, full cut-off optics, curfews, motion activation and construction-phase controls, linked to the Outline LEMP.
- **Provide night-time visualisations and spill mapping** showing predicted vertical illuminance at nearest receptors and along PRoW.
- **Assess cumulative night-time effects** before the ES, mapping combined light sources from compounds, substations and grid-connection works.
- **Secure ecological lighting limits** in the DCO — downward-facing, motion-activated, low-lux, warm-white fittings only, with timed curfews and no-light buffers adjacent to hedgerows, watercourses and known bat or badger routes.

Rochdale Envelope Risk Analysis

KSCA has serious concerns about how Kingsway Solar is using the 'Rochdale Envelope' in its plans for the Kingsway Solar facility.

The Rochdale Envelope is a planning tool that allows some design flexibility — for example, by setting maximum and minimum heights or general areas for infrastructure — as long as the likely environmental effects of that flexibility are clearly identified and assessed.

Fundamental parts of the scheme, including the pylon routes and layout of solar panels — are still described as "indicative", and the degree of freedom is so great that it prevents consultees from knowing what will actually be built. Government guidance on the Rochdale Envelope makes clear that flexibility must not prevent proper understanding of environmental effects, stating:[26]

- *the assessment should be based on cautious 'worst case' approach:*
  "such an approach will then feed through into the mitigation measures envisaged […] It is important that these should be adequate to deal with the worst case, in order to optimise the effects of the development on the environment" (para 122 of the Judgement);
- *the level of information required should be:*
  "sufficient information to enable 'the main,' or the 'likely significant' effects on the environment to be assessed […] and the mitigation measures to be described" (para 104 of the Judgment);
- *the need for 'flexibility' should not be abused:*
  "This does not give developers an excuse to provide inadequate descriptions of their projects. It will be for the authority responsible for issuing the development consent to decide whether it is satisfied, given the nature of the project in question, that it has 'full knowledge' of its likely significant effects on the environment. If it considers that an unnecessary degree of flexibility, and hence uncertainty as to the likely significant environmental effects, has been incorporated into the description of the development, then it can require more detail, or refuse consent" (para 95 of the Judgment);

The Rochdale Envelope approach can be reasonable when only small design details are uncertain. However, in this case, Kingsway Solar has **left major aspects of the scheme open-ended**. Too many key details remain undefined, which makes it impossible for communities to properly understand or judge the project's real impacts.

In addition, a number of key mitigation measures, such as the Construction Traffic Management Plan, Battery Safety Management Plan and ecological protection plans, are proposed to be developed only **after** consent is granted. KSCA believes mitigation should be

[26] Nationally Significant Infrastructure Projects - Advice Note Nine: Rochdale Envelope https://www.gov.uk/government/publications/nationally-significant-infrastructure-projects-advice-note-nine-rochdale-envelope/nationally-significant-infrastructure-projects-advice-note-nine-rochdale-envelope. Updated March 2025. (accessed October 2025)

defined and tested **before** consent. If final designs move infrastructure closer to homes or sensitive sites, later mitigation may not provide adequate protection.

Identified Areas of Uncertainty

The proposal provides only very broad parameters for important **physical components** of the scheme, as shown below:

Project Element	**Maximum Size / Scale**	**What's Missing or Unclear**
Solar PV array	Up to 4.2 m high	Height is not fixed and unclear whether all panels will reach 4.2 m or only those in flood-risk areas. This has major implications for visual impact and open-landscape views.
Overhead Line (OHL) pylons	Up to 65 m high	Only "indicative" routes are shown. Some flexibility may be reasonable at the Burwell end, but not at the southern end of the Grid Connection Corridor.
Cable and infrastructure areas (PV arrays, inter-array corridors, ecological and landscape enhancement areas, substations)	All labelled as *indicative*	No detail on inter-array corridors or landscape enhancement areas, with implications for local communities, ecology and access.
Perimeter fencing	Mesh and wooden-post security fence up to 2.4 m high	Unclear whether fencing will enclose the whole site or only PV areas. Later correspondence suggests only PV areas, but this is not confirmed.
CCTV and security lighting	Undefined	No technical specifications (pole height, light intensity, colour spectrum, activation method, or number of units). These elements could be highly

		intrusive to rural character and nocturnal wildlife.

Other Critical Areas of Uncertainty

Beyond layout and infrastructure parameters, several risk areas remain insufficiently assessed.

The Battery Energy Storage System (BESS) presents unresolved questions about fire prevention, explosion risk and emergency response: the PEIR defers the Battery Safety Management Plan and drainage containment design until post-consent, meaning no tested measures exist for managing toxic runoff or “firewater” within flood-prone or groundwater protection zones.

The road and transport strategy is similarly uncertain, with key access routes—including Six Mile Bottom Road and other rural lanes—unconfirmed and untested for HGV suitability, safety and cumulative traffic impacts.

Land management and biodiversity mitigation also remain at concept level, with no detailed soil handling, habitat restoration, or drainage plans undermining assurances that agricultural reinstatement and ecological “enhancements” will be achievable.

Together, these uncertainties mean that Kingsway Solar’s environmental safeguards, safety measures and operational controls cannot be meaningfully reviewed or verified before consent.

Implications for the Assessment

Because of these gaps and indicative nature of the plan:

- The true visual and landscape effects cannot be understood
- The impact on heritage settings and local character remains unknown
- The effectiveness of safety and noise mitigation cannot be checked
- Consultation is undermined, as the public is being asked to comment without knowing exactly what is proposed.

Why Local People Are Concerned

Local residents are being asked to respond to a proposal that lacks the clarity needed to understand what it would mean for their area. People cannot easily visualise the scale of development or how close it may be to homes, public rights of way or valued landscapes. There is also concern that the environmental studies underestimate the real impacts, because the “worst case” used in assessments may not match what is eventually built.

What KSCA Asks from Kingsway Solar

- **Fix or tightly define the locations, heights and dimensions** of pylons, solar panels and all other infrastructure and clearly set out associated risks.
- **Provide clear evidence that the "worst-case" scenario** used in assessments represents a realistic configuration, not a theoretical extreme.
- **Submit all key mitigation plans** — including those for safety, traffic, noise and ecology — before consent is sought.
- **Reassess key environmental effects** using the clarified design and mitigation information.

Heritage and Archaeology Risk Analysis

Overview

The report on archaeology is presented in PEIR Volume 2 Chapter 8a (Cultural Heritage - Archaeology) and is supported by PEIR Volume 4 Appendices 8a.1 to 8a.6. Whilst the desk based study of Land Parcels A, B and C is apparently comprehensive, no such survey has been carried out in the Grid Connection Corridor of Inter-Array Corridors. Geophysical surveys have been carried out in at least parts of Land Parcels A, B and C, but the full extent of these is not clear, and none have been carried out in the Grid Connection Corridor or Inter-Array Corridors.

Attempts have been made to avoid archaeological features during infrastructure placement; however, these have not always been successful. Mitigation measures will therefore be required, though these are deferred to an outline management plan to be submitted with the DCO application (Section 8.4 of Chapter 8a).

Deficiencies in Surveys

It is recognised in paragraph 8.5.12 of Chapter 8a that *“Based on known archaeological remains identified within the Study Area and inside the Site boundary, the potential for hitherto unknown archaeological remains to be present within Developable Areas A-C is considered high. Such remains could be of Low to High archaeological sensitivity.”*

It is of significant concern that no desk-based assessment has yet been undertaken for the Grid Connection Corridor. Furthermore, the Geophysical Survey Report for the developable areas on which Chapter 8a is fundamentally incomplete: none of the 195 illustrations listed in its contents have been provided, rendering it impossible to evaluate the adequacy or thoroughness of the survey work. Reports from local residents further indicate that substantial areas were omitted from the survey as they were under crop cover at the time the work was carried out. Notably, a known Roman well, clearly visible in crop marks but absent from the report (see Figure H&A 1), demonstrates that the geophysical survey failed to record known archaeological features, confirming that the investigation was incomplete at least in this area.

Figure H&A 1: Roman well visible in crop marks from 2022, not shown on PEIR Volume 3 Figure 8a.6 Archaeological Zones in Dev Area C Showing Underlying Geophysical Survey Anomalies.

The potential impact of internal roads is not considered anywhere in the PEIR, as even indicative alignments have not been provided. The effect of these roads on archaeological features must be fully assessed and taken into account.

Interaction of Infrastructure with Archaeological Features

It appears that some effort has been made to avoid archaeological features when positioning infrastructure, but the extent of overlap with the identified ‘archaeological zones’ containing geophysical anomalies, particularly in Land Parcel C, demonstrates the difficulty of avoiding such features and highlights the unsuitability of this location for development of this kind. Illustrative maps showing the approximate overlay of infrastructure locations on the geophysical survey data are presented in Figures H&A 2, H&A 3H and H&A 4 to make this relationship clearer than in the Kingsway Solar report. It is also noted that the Area C substation, for which, as stated in paragraph 8.2.20, “impacts will be more substantial”, has been located within Archaeological Zone C4.

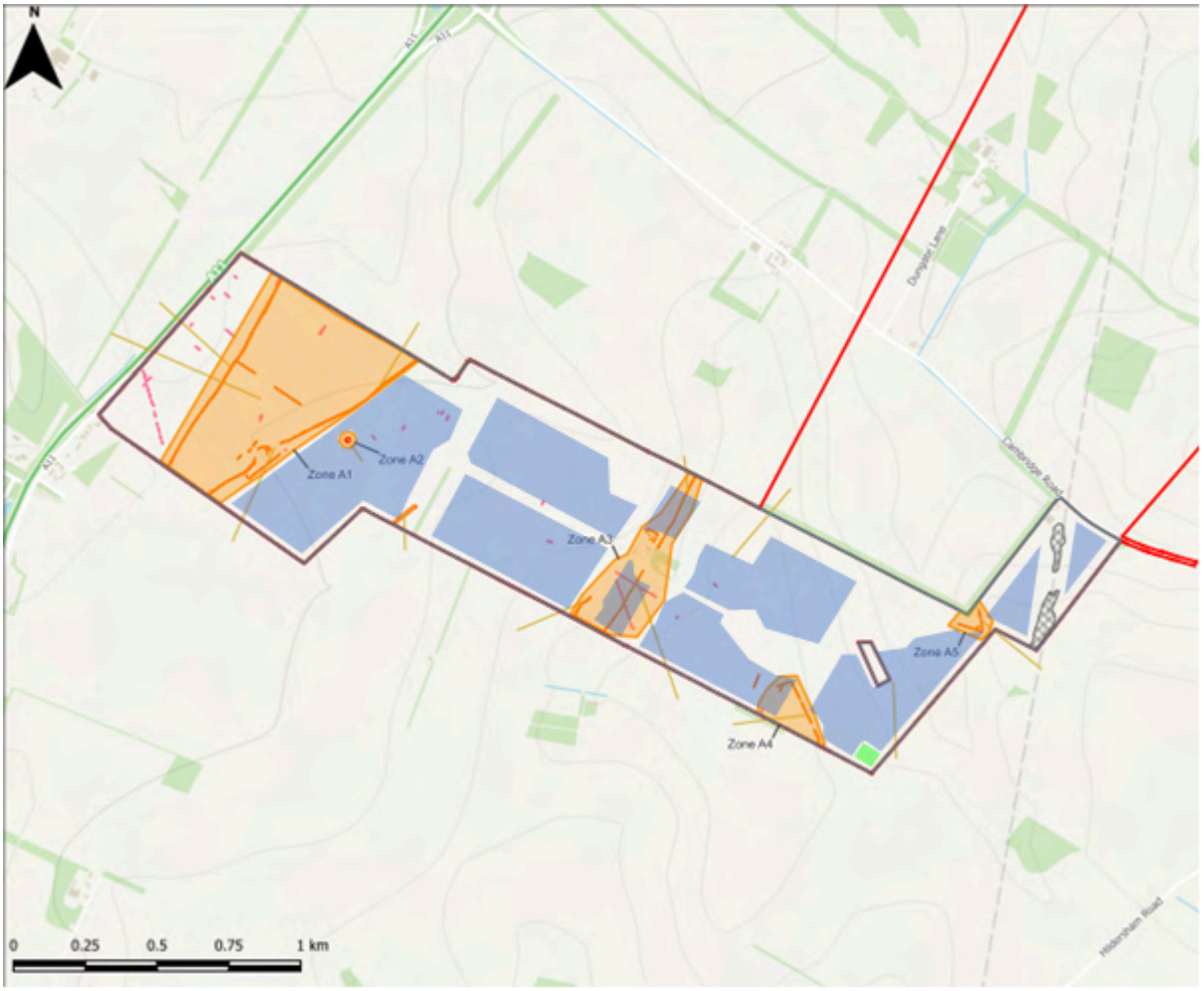


Figure H&A 2: Infrastructure overlaid on geophysical survey map in Figure 8a 4 (Land Parcel A). Archaeological features in orange, PV arrays in blue, substation in green.

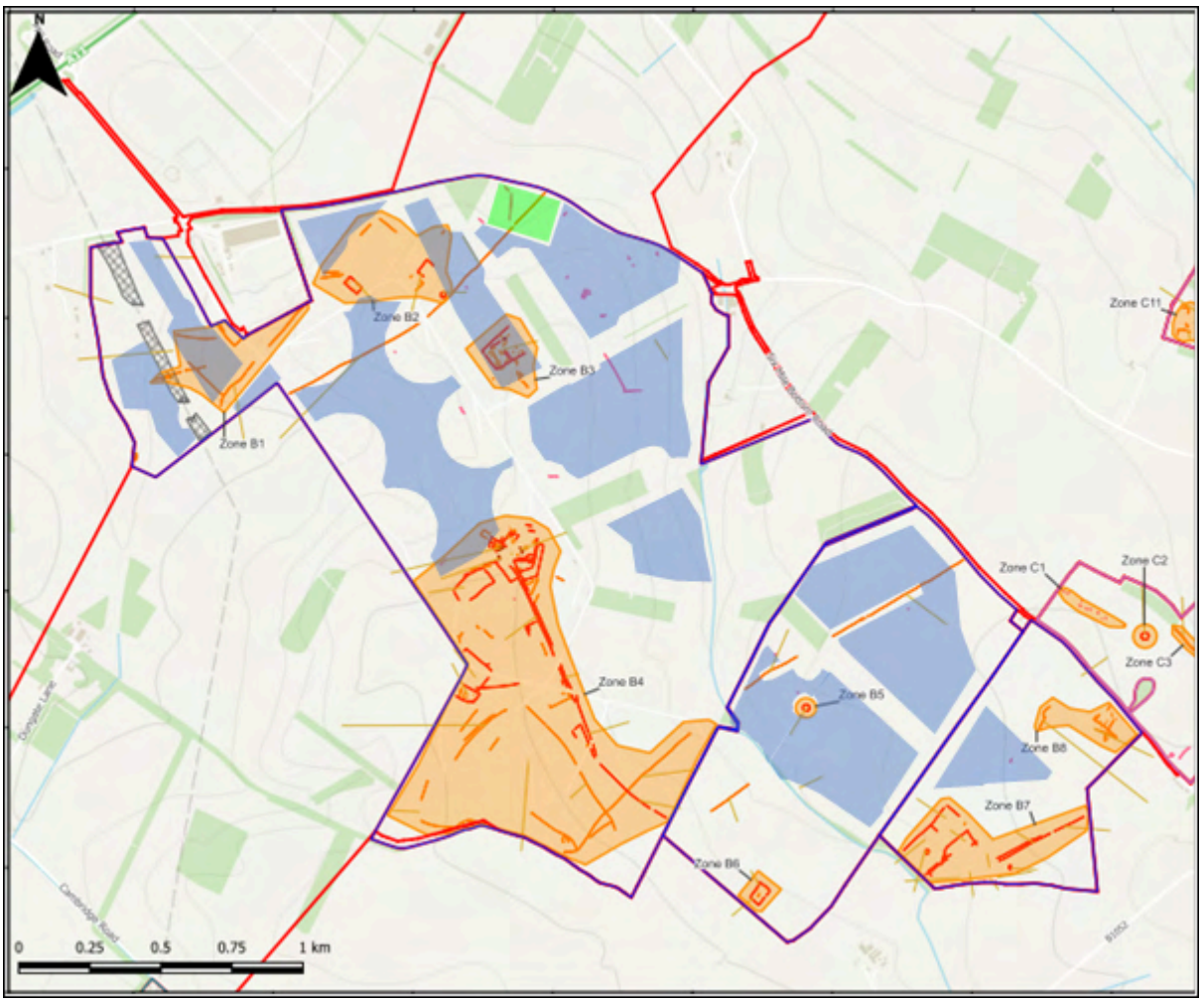


Figure H&A 3: Infrastructure overlaid on geophysical survey map in Figure 8a 5 (Land Parcel B). Archaeological features in orange, PV arrays in blue, BESS and substation in green.

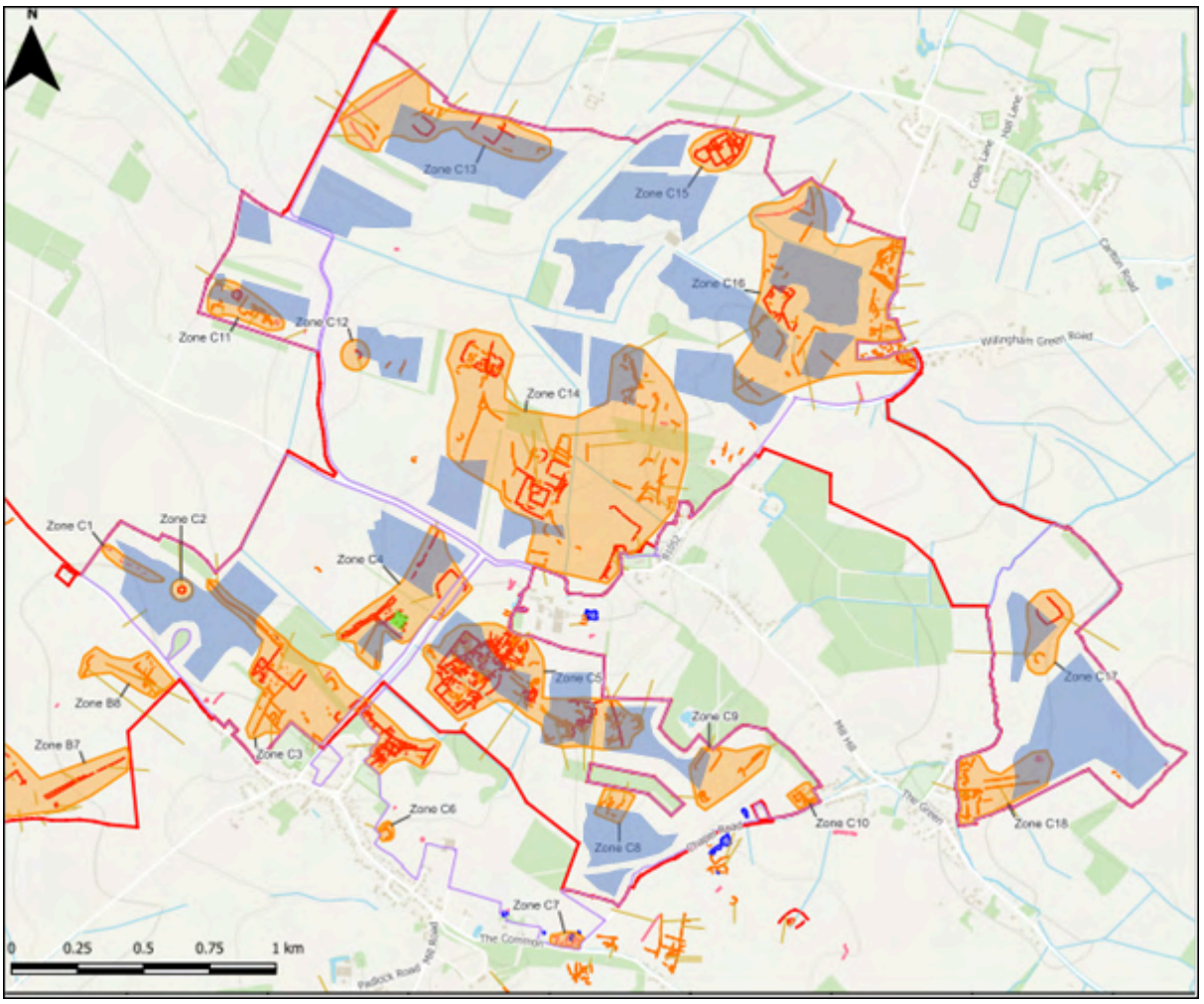


Figure H&A 4: Infrastructure overlaid on geophysical survey map in Figure 8a 6 (Land Parcel C). Archaeological features in orange, PV arrays in blue, substation in green.

Reference is made in paragraph 8.5.13 to the Inter-Array Area connection corridor between Land Parcels A and B, which is stated to *"contain a single scheduled monument, Fleam Dyke (NHLE 1006931), of Saxon date,"* and that *"the inter-array connection design will ensure there are no direct impacts to the scheduled monument."* No explanation is provided as to how this will be achieved. It is noted that Fleam Dyke includes a linear bank several metres high, which would make cable installation across it particularly difficult and likely to result in a major adverse impact on the landscape. It should also be noted that a long-distance path, the Harcamlow Way, runs along Fleam Dyke. Clear assurances are required on how any construction or decommissioning disturbances will be managed without causing excessive diversions.

The only reference to the Inter-Array Area connection corridor within Land Parcel C appears in paragraph 8.3.12, which states that *"There are no HER records or designated assets within Inter-Array Area 2 between two parts of Developable Area C to the west of the main solar array area."* No Archaeological Zones are shown in Figure 8a.6, but as this land is outside the area where Kingsway Solar has an agreement with the landowner, it is believed that no surveys have been undertaken. Comments made at in-person consultation events suggest that this inter-array connection corridor may also be used for an access road, which

would pose a greater risk to archaeological remains than the installation of grid connection poles. Detailed information on this area, including survey results and proposed mitigation measures, is required.

Historic Environment and Groundwater-Dependent Archaeology

Historic England has identified that parts of the Kingsway Solar site may contain waterlogged archaeological deposits that depend on stable groundwater levels for their preservation. Construction activities such as trenching, piling and drainage installation have the potential to alter local hydrology, lower groundwater levels and cause the drying and decay of organic archaeological materials. Despite this recognised risk, Kingsway Solar has deferred any detailed assessment of potential impacts on these groundwater-dependent heritage assets until the Environmental Statement (ES) stage. This deferral prevents proper understanding of the threat to buried archaeological remains and fails to meet best practice standards for early-stage heritage risk assessment.

KSCA Assessment and Position

While Kingsway Solar has apparently attempted to avoid archaeological features in the layout of infrastructure, this has not been entirely successful owing to the extent of archaeological heritage. It is of concern that not all features have been identified due to incomplete surveys and that disruption caused by internal road construction has not been considered. This leaves archaeological heritage poorly understood, unprotected and vulnerable to damage.

What KSCA Asks from Kingsway Solar

- **Complete all archaeological surveys** across the Grid Connection Corridor and Inter-Array Corridors before the ES is finalised, including areas previously omitted due to crop cover or access constraints.
- **Publish the full Geophysical Survey Report** with all 195 illustrations listed in its contents to allow independent assessment of coverage, methods and interpretation.
- **Provide clear mapping** of internal road and infrastructure alignments overlaid on archaeological zones to enable proper evaluation of direct and indirect impacts.
- **Undertake a desk-based assessment** for the Grid Connection Corridor and any unsurveyed areas, consistent with the level of detail provided for Land Parcels A, B and C.
- **Explain in detail how the Fleam Dyke scheduled monument and the Harcamlow Way** will be protected during construction and decommissioning, including specific methods to avoid ground disturbance or landscape alteration.
- **Confirm whether the Inter-Array Corridor in Land Parcel C** will be used for access and, if so, provide an archaeological impact assessment and mitigation plan.

- **Assess and report on the impact of construction activities on groundwater-dependent archaeological deposits**, in consultation with Historic England, and commit to implementing measures to preserve hydrological stability

Community Compensation Analysis

Overview

At a meeting on 26 September 2025, David Vernon advised KSCA that the selection of the mechanism by which the community compensation (stated to be £300,000 per year) will be decided solely by himself. While he would take account of suggestions from the community, there will be no negotiations. There are no agreed negotiation mechanisms and no recognised community representatives who can provide a coordinated response to the developer. A meaningful compromise therefore cannot be arrived at.

In addition, there is no explanation of how the £300,000 sum has been calculated, nor why the developer considers it appropriate compensation for the significant and long-term harms this project will inflict on local villages. The 2021 Census results for Cambridgeshire and Peterborough show a population for Balsham ward (which includes all the land parcels of the Kingsway Solar proposal, but not the connection corridor) of 3590. The proposed sum would therefore be approximately equivalent to £83 per person per year.

The developer expresses only an aspirational commitment to “supporting the communities living alongside our projects through community benefit schemes” and providing “opportunities for local communities and the local economy.”

However, the consultation materials primarily seek feedback on which projects or sectors the fund should target and how the funds should be administered (e.g. via local councils or a trust). This reflects an exploratory stage rather than a contractual commitment, with no binding guarantees.

The targeted areas are described in general terms only (“projects” or “sectors”) with no defined priorities, amounts, or duration.

Meanwhile, the developer admits significant adverse effects on local communities that ostensibly justify compensation:

- Landscape and Visual: “Significant” adverse effects on residential properties and users of the Public Rights of Way (PRoW) network.
- Socio-economics and Population: “Significant” temporary adverse effects on PRoW users during construction.
- Traffic: Significant temporary disruption over the two to three year construction period.

Comparison with Other NSIP and Local Schemes

Project	Capacity (MW)	Community Fund	Duration	Notes
Oaklands Solar Farm	138 MW	£55,000 per year	40 years	Secured through local authority, index-linked
Cleve Hill Solar Park (Kent)	350 MW	£500,000 over 8 years	After long community campaign	
OneEarth Solar (Cambs)	50 MW	£1,000 total	10 years	Non-binding, minimal

This comparison shows that Kingsway Solar's proposed community compensation is disproportionately low relative to its scale. By contrast, the Carbon Neutral Cambs proposal[27] suggests that a project of Kingsway Solar's magnitude should deliver at least £2.5 million annually, reflecting fair and proportionate community benefit.

Downing's Kingsway Solar and Meridian Solar Farm (750 MW, Lincolnshire) have proposed annual community benefit funds of £300,000 and £500,000 respectively. These figures remain aspirational, pending any inclusion in the DCO and are not legally binding.

KSCA recognises that Downing is consulting on potential uses for the funds but that neither project has provided governance details, indexation or an enforceable delivery mechanism. Until such agreements are formalised, these offers cannot be relied upon to offset the scale of harm or disruption these projects would cause.

What KSCA Asks of Kingsway Solar

- **Publish a draft Section 106 Agreement or equivalent Planning Obligation** before DCO submission. This should specify the financial value, duration and indexation of the community fund, with clear governance arrangements involving all affected parishes and councils. The fund must be legally secured, transparent and independently managed, not controlled solely by the developer.

[27] Carbon Neutral 2025. Available at: https://carbonneutralcambridge.org/wp-content/uploads/2024/12/21934-final-Kingsway-consultation-response.pdf (accessed October 2025)

- **Disclose the methodology used to calculate the proposed £300,000 annual contribution**, showing how it relates to project capacity (per MW), the number of local people affected, and the scale of local impacts and the operational lifetime of the scheme.
- **The community fund must not replace or offset proper mitigation of environmental or amenity harm.** In line with planning policy, mitigation must take priority and compensation should only apply to residual, unmitigable effects such as long-term visual, health, or amenity losses.
- **Establish a Community Benefit Forum** or equivalent participatory mechanism to ensure that all affected parishes are active partners in decisions about how the fund is structured, governed and distributed. Such a forum should be fully funded by Kingsway Solar.
- **Community fund should prioritise direct and measurable local improvements**, including:
    - Long-term landscape management and biodiversity restoration
    - Repairs and upgrades to local roads, traffic routes and Public Rights of Way
    - Support for community wellbeing, health initiatives and local renewable energy projects that deliver lasting local value

Alternative Site Analysis

Overview

KSCA has reviewed PEIR Volume 1, Chapter 4 (Alternatives and Design Evolution) and finds that the justification for choosing the Kingsway Solar site is incomplete and inconsistent with national planning requirements. While the chapter outlines a broad “iterative” design process, it fails to provide the transparent, evidence-based comparison of alternatives required by the Environmental Impact Assessment Regulations 2017 and the National Policy Statements EN-1 and EN-3.

Primary Selection Driver: Grid Connection

In the PEIR (4.6.2), Kingsway Solar admits that a **central factor** influencing site selection was proximity to the Burwell–Pelham 400 kV transmission line. While grid connection feasibility is a practical consideration, it is not an environmental justification under national policy.

The National Policy Statement EN-3 requires developers to avoid Best and Most Versatile (BMV) agricultural land unless no reasonable alternative exists. According to Kingsway Solar’s own estimates, over 750 ha of Grade 1, 2 and 3a farmland would be permanently lost, yet in 4.3.29–4.3.30 they rely on generalised mapping and claim (without evidence) that land elsewhere would have “*similar levels of BMV*.” No comparative data or mapping are presented to support this claim.

Paragraph 4.3.22 further shows that **landowner willingness and grid proximity**, not environmental suitability, determined site selection. This undermines compliance with **EN-3** and the **NPPF** requirement to avoid BMV loss, making the conclusion of “*no significant effects*” unreliable.

Failure to Apply the Sequential Test

Paragraph 4.1.9 confirms that a smaller or lower-capacity scheme was ruled out from the outset, largely because of Kingsway Solar’s 500 MW grid agreement with National Grid. This effectively **removed reasonable alternatives** from consideration at an early stage.

A proper **Sequential Test,** as required by EN-1, should have compared other potential sites, including brownfield, lower-grade agricultural, or less visually sensitive land, but no such evidence is provided.

Constraints and Comparisons

The PEIR (4.3.19) lists multiple constraints affecting land closer to Burwell but provides no equivalent list for the selected site. Cross-referencing 4.3.37 reveals that the Kingsway Solar site also faces major designations, including:

- Devil’s Dyke SSSI and Fleam Dyke SSSI

- Devil's Ditch, Bowl Barrow and Long Barrow Scheduled Monuments
- Source Protection Zones 1 and 2
- Areas of Flood Risk Zones 2 and 3
- Peat soils within the grid-connection corridor

Despite their proximity to the site boundary, **villages such as Balsham, West Wratting and Weston Colville** are not recognised as constraints, indicating a selective and incomplete assessment of relative site sensitivities.

Access and Transport Considerations

Kingsway Solar's PEIR (4.3.21) states that proximity to the A11 and A14 was a key factor in site selection, intended to avoid reliance on "more rural roads" for HGV and abnormal-load access. However, Six Mile Bottom Road—a narrow rural lane with limited capacity (see Figures T&T 2 and 3 in the section on *Traffic and Transport*) —remains under active consideration as a primary access route. This directly contradicts the stated rationale and suggests that the true extent of rural road impacts has not been adequately assessed or evidenced (see section on Traffic and Transport).

Inconsistencies in Consultation Material

The Consultation Information Booklet repeats much of Chapter 4's reasoning but introduces new claims about "*distance from residential areas*" and "*avoiding impacts to Public Rights of Way*." Both are misleading and inconsistent with the technical evidence. PEIR Chapter 14 (14.5.64) confirms that PRoW 251/18 will experience changes in accessibility throughout construction and operation, meaning that users will face a long-term/permanent diversion rather than full continuity of access. This directly contradicts the public claim that impacts on PRoW are avoided and undermines assurances about protection of community routes and rural amenity.

Local Landscape Character and Sensitivity

The proposed site lies within a diverse and sensitive rural landscape, recognised in both the Cambridge Local Plan and South Cambridgeshire Landscape Character Assessment as having a strong and distinctive character. Situated within the East Anglian Chalk landscape, it transitions into areas of clay woodland and chalk grassland, forming a **unique mosaic of habitats** defined by traditional hedgerows, shelterbelts and wide open views. As shown in PEIR Volume 3, Figure 7.6 (Landscape Character Area Plan - see Figure ASA 1), this openness and ecological variety make the area highly sensitive to large-scale industrial development, with its landscape quality and biodiversity forming an integral part of Cambridgeshire's rural identity.

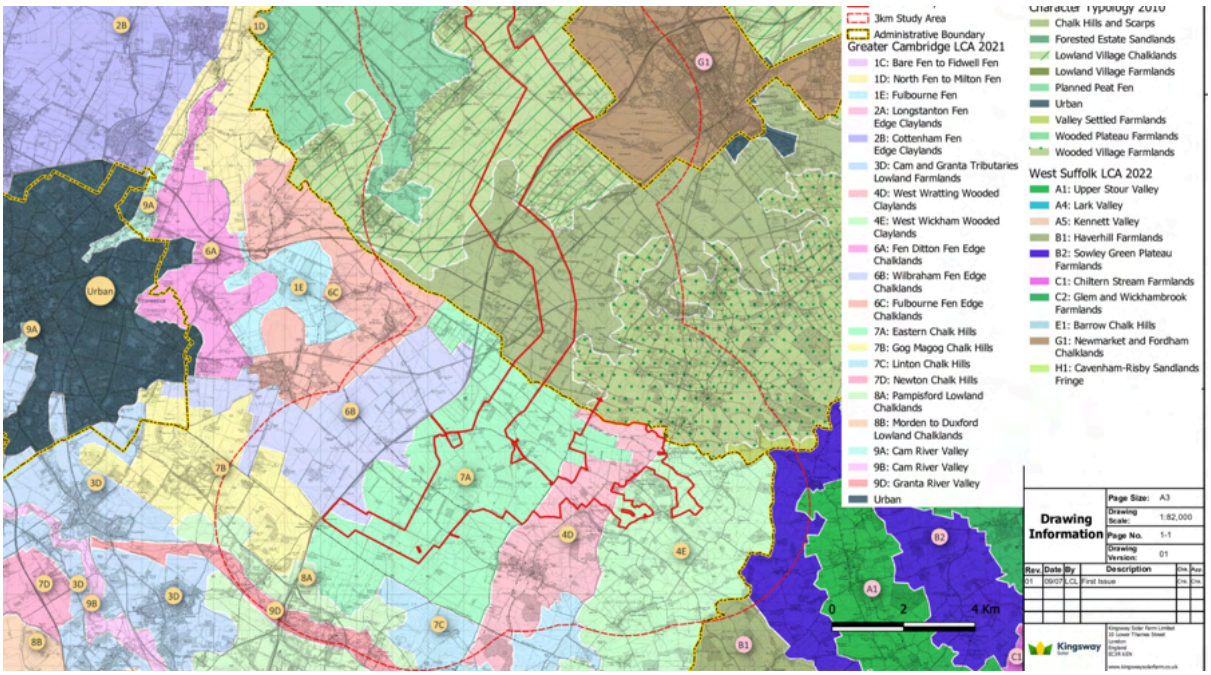


Figure ASA 1: Landscape Character Area Plan

KSCA considers that Kingsway Solar's assessment substantially underestimates the area's landscape sensitivities and provides no clear justification for why less exposed or more visually contained locations were not considered. The current rationale for site selection is therefore procedurally weak, scientifically unsubstantiated and environmentally unsound, falling well below the evidence, transparency and rigour required for a Nationally Significant Infrastructure Project (NSIP).

What KSCA Asks from Kingsway Solar

- **Publish** a transparent Sequential Site Assessment comparing all candidate sites, with clear environmental and agricultural scoring.
- **Provide** full BMV land mapping and justification for the permanent loss of productive farmland.
- **Demonstrate** that alternative brownfield or lower-grade sites were objectively assessed and ruled out on legitimate planning grounds.
- **Include** cumulative **landscape sensitivity mapping** to show how the chosen site performs against other reasonable options.
- **Include** cumulative **access and infrastructure sensitivity mapping** to assess traffic, construction, and grid connection feasibility.
- **Update** Chapter 4 in the Environmental Statement with map-based evidence and a verifiable decision-making audit trail.

Visual Impact Analysis

Overview

KSCA has reviewed PEIR Volume 2, Chapter 7 (Landscape and Visual Amenity) and Volume 4, Appendix 7.4 (Visual Assessment Tables) to understand the extent of visual intrusion on the local area and its implications for residents. The review finds that while the PEIR acknowledges significant adverse landscape and visual effects, particularly from the proposed OHL, solar PV arrays and substation infrastructure, it lacks sufficient detail on mitigation measures, cumulative impacts and visual effects on key public viewpoints and residential receptors.

Unmitigable Landscape Degradation

The Land and Visual Impact Assessment (LVIA) concludes that the visual and landscape effects of the scheme are *"significant"* and *"cannot be fully mitigated."* This is an explicit admission of unacceptable residual harm, which directly conflicts with national planning policy (NPPF and NPS EN-1) objectives to conserve and enhance rural landscapes, with requirements to minimise significant adverse effects.

Volume 4 Appendix 7.4 makes the following mention of visual impact on PRoW users in area B: *"Views of the Grid Connection Corridor and Substation B in addition to Developable Area B may be possible on more exposed hillslopes at distances ranging from 300m - 2.5km, seen against a backdrop of intermittent vegetation and existing pylon lines and wind turbines."* However, this attempts to downplay the admitted "major, adverse" impact using language such as "may be possible" and "existing pylon lines" to suggest the transformation will be less impactful. In reality the landscape would be utterly transformed.

The PEIR references the Greater Cambridge Character Landscape Assessment (2021).[28] Landscape Character Area 4E includes descriptions of Land Parcels C and B, specifically the villages of Weston Green, Weston Colville, Carlton and Willingham Green and the views of the chalk hills. It states the following specific sensitivities:

- Predominantly irregular field pattern indicative of medieval field layout
- Small, regular fields, strong woodland groups and mature hedgerows generally enclosing settlement
- Distinctive open, panoramic views towards wooded horizons

And gives the following Specific Landscape Guidelines:

- Conserve irregular, medieval field boundaries
- Conserve and enhance the regular small-scale fields, woodlands and hedgerows at village edges
- Conserve open views towards wooded horizons

[28] Available from: https://consultations.greatercambridgeplanning.org/sites/gcp/files/2021-08/LandscapeCharacterAssessment_GCLP_210831_Part_A.pdf (accessed October 2025)

Visual Impacts: Land Parcel A

KSCA created a series of short videos to show the true scale and extent of Kingsway Solar's proposed solar facility and how dramatically it would affect our local landscape. Each video comprises two hours of walking, with the first section covering the section between Worsted Lodge and the Hildersham Road, along the Roman Road (land adjacent to Land Parcel A).[29] It is noted that no viewpoints apart from Viewpoint 33 (which does not provide an adequate representation of the visual impact) have been selected by Kingsway Solar to show the impact of the solar facility on local receptors, including walkers and riders.

Kingsway Solar Figure Figure 7.14 in Land Parcel A

Visual Impacts: Land Parcel B

The photographic evidence provided by Kingsway Solar is inadequate for demonstrating visual impacts. For example viewpoint 30 (Volume 3 Figure 7.14) shows an incomplete panorama of one of the most visually impacted locations in area B (W3W ///barmaid.damp.reset). An alternative set of pictures is provided here by KSCA to better demonstrate the nature of this landscape, including an utterly unique view of Ely Cathedral from the Harcamlow Way (Figures VI 1, VI 2a-e, VI 3 and VI 4).

[29] Encircled: A series of six videos available to watch on YouTube: Day 1: https://youtu.be/oRMxV4NVq-s?si=sqpfm4-HwWi4LUes; Day 2 YouTube: https://www.youtube.com/watch?v=tGx9dfd4bHo; Day 3 YouTube: https://www.youtube.com/watch?v=oSBSxL_L3Ok; Day 4 YouTube: https://www.youtube.com/watch?v=7l8LZpHjQjM; Day 5 YouTube: https://www.youtube.com/watch?v=NVeTH-sn-TQ; Day 6 YouTube: https://www.youtube.com/watch?v=XZtwstYiqO0

The PEIR includes only three photographs (viewpoints 29, 30 and 32) for Land Parcel B, which contains the largest concentration of solar panels, and these do not represent the true visual impact of the proposed array locations. There are no images showing the substation site in Area B or views from Six Mile Bottom Road or the A11 approach. The BESS and substation are likely to have a major visual impact on nearby residents and along the Grid Connection Corridor, which originates at this point.

Kingsway Solar Figure 7.14/30 in Parcel B

Figure VI 1: Picture from the same viewpoint as 7.14/30 showing exposed south facing hillside designated for panels.

Figure VI 2a-e: Series of pictures from the Harcamlow Way in Parcel B (W3W///exposing.fillings.soils). All the fields beyond the first hedgerow are designated for panels.

Figure VI 3: Additional view from the Icknield Way in Parcel B (W3W ///depending.thrashed.purchaser) across fields (foreground and beyond) designated to be covered in panels. This location is a possible point for construction traffic to cross the Icknield Way to the solar development area field opposite this field.

Figure VI 4: View from the Harcamlow Way in Parcel B (W3W ///culminate.yacht.assist) looking over the Icknield Way showing a unique view of Ely Cathedral on the skyline. The fields behind and to the right of the mid-ground copse are designated for solar panels.

The above images make clear that the visual impact of infrastructure on Land Parcel B would be severe, fundamentally altering and destroying the character of this distinctive landscape. Such intrusion would cause significant harm to the health and well-being of regular users of the ancient Icknield Way and the Harcamlow Way, which follows the Fleam Dyke Scheduled Monument and SSSI.

With solar arrays reaching 4.2 m, substations and BESS compounds up to 15 m and OHL pylons up to 65 m, the development would transform the tranquil East Anglian Chalk landscape—currently described as “simple and uninterrupted”—into a large-scale industrial zone.

Visual Impacts: Land Parcel C

The PEIR (7.3.47) selects 38 representative viewpoints (PEIR Volume 3, Figure 7.13 Viewpoint Location Plan) to inform the assessment of effects. The viewpoints provided below for Land Parcel C demonstrate the extent of likely visual intrusion on the surrounding landscape and community.

- **Viewpoint 10,** from Common Road southeast of Weston Green (approximately 950 m away), provides a clear line of sight to the proposed site. The introduction of solar panels and fencing would significantly alter what is currently an open rural view with minimal screening, producing a **medium to high magnitude** of change to the local landscape character.

- **Viewpoint 11,** taken from Public Right of Way 251/19 at Weston Green (around 170 m from the site boundary), shows the most pronounced visual impact. At this proximity, the solar infrastructure would dominate the outlook, creating a **high magnitude** of change and a major deterioration in visual experience for walkers and nearby residents (Figure VI 5).

Figure VI 5: Rear view for Weston Green / Horseshoe Lane viewpoint 11 showing land which will have solar panels and in clear vision of houses.

Viewpoint 12, from Willingham Green Road (approximately 550 m distant), benefits from partial screening by hedgerows, but the arrays would still be visible through gaps in vegetation. The effect here is **medium magnitude**, reflecting a moderate but still noticeable intrusion into the rural landscape.

The photograph below shows part of the hedge bordering the field on Chapel Road (Figure VI 6), which is proposed to contain solar panels. The images clearly illustrate the natural variation in tree and hedge height, calling into question the claim by a Kingsway representative that some hedges would be reduced to *“600 centimetres”* and then *“maintained”* at that level—an ambiguous and unrealistic proposal.

Figure VI 6

The next two photographs (Figure VI 7 and V8) show views across the field designated for solar panels, taken from the edge of Chapel Road. If the Kingsway scheme proceeds, these views would be dominated by solar panels, perimeter fencing and CCTV installations.

Figure VI 7

Figure VI 8

Please also note Figures S&P 1-3 in the section on *Socio-economics and Population Risk Analysis* and the associated text.

At present, this area is characterised by natural tranquillity, with only birdsong, farm machinery or animal sounds breaking the quiet. The introduction of industrial-scale solar infrastructure would disrupt this soundscape and erode the sense of peace that defines the area.

The Zone of Theoretical Visibility (ZTV) maps (PEIR Volume 3, Figures 7.11 and 7.12) reinforce these findings. Figure 7.11, covers the Grid Connection Corridor; this indicates that Weston Colville lies within the screened visibility zone, suggesting that pylons and associated infrastructure may still be visible despite proposed screening. Figure 7.12, for the combined scheme, confirms that solar PV arrays, substations and connection corridors would all be visible from Weston Colville and nearby PRoW.

Sensitive Receptors

In landscape and visual impact assessments (LVIA), sensitive receptors are those most likely to be affected by changes in the landscape. For Kingsway Solar facility, these include:

- Residents living in and near Developable Area C (e.g. Weston Colville, Weston Green, Willingham Green)
- Walkers and cyclists using PRoW including the Harcamlow Way and Icknield Way / E2 European Walking Route
- Visitors to tranquil rural areas seeking scenic views and natural experiences

These groups are considered high sensitivity because:

- Their activities involve direct engagement with the landscape
- They are likely to notice and care about visual changes

KCSA Assessment and Position

The proposed Kingsway Solar facility conflicts with the aims of the Cambridgeshire and Peterborough Local Nature Recovery Strategy (LNRS, 2025),[30] which seeks to create a connected, wildlife-rich and resilient landscape that supports both people and nature. Instead, the scheme would fragment habitats, disrupt ecological and visual connectivity and erode the scenic and tranquil character of the East Cambridgeshire countryside.

Viewpoints in the PEIR show major adverse visual effects from nearby PRoW and residential areas, undermining the LNRS goals of public access to nature and community-led recovery. With no clear alignment to local biodiversity priorities, the 'Doubling Nature' pledge[31] or nature-based solutions for carbon and wellbeing, the proposal is inconsistent with the LNRS vision of protecting and enhancing the natural environment. Furthermore, the LNRS highlights the importance of local engagement and parish-level initiatives in delivering nature recovery. The PEIR's lack of detailed evidence, relying solely on minimal winter baseline photography, together with the Kingsway Solar team's limited understanding of local conditions, significantly weakens the credibility of the proposed assessment.

The KSCA Community Survey (Appendix A) shows how deeply residents value their connection to the local landscape, as reflected in many of the written comments from respondents:

> *We bought our house because of the fields around us, loving the views. Since we moved, the countryside has helped my wellbeing and mental health. I love seeing all the wildlife when walking. I am really worried about what is going to be put on the land around our home. I am worried about the wildlife, the health implications for us and the noise.*
>
> *I moved here for peace and tranquillity. To be at one with nature around me. And enjoy what this countryside had to offer little did I know it would be a huge solar farm.*
>
> *We moved to Balsham 3 years ago. We love the outdoors and Balsham and the surrounding area provided all the essentials. As keen cyclists we have enjoyed exploring the quiet lanes and surrounding villages. I love to run and the surrounding fields, footpaths and woods offer quiet countryside for trails.*
>
> *The impact it is already having on my physical & mental health is massive. I have rheumatoid arthritis and stress brings on excruciating pain lasting for days, weeks sometimes months. How I manage symptoms is by walking the footpaths around the village and being in nature. Every time there's something happening with the solar farm I've experienced a flare up & ended up in horrible medications & being physically unwell, leading to bouts of depression*

[30] Available at: https://cambridgeshirepeterborough-ca.gov.uk/what-we-deliver/environment/lnrs/ (accessed October 2025)
[31] Availale from: https://yourvoice.cambridgeshire.gov.uk/lnrs/consultation/supporting_documents/Local%20Nature%20Recovery%20Strategy%20for%20Cambridgeshire%20and%20Peterborough%20Part%202.pdf (accessed October 2025)

Around 90% of respondents link their wellbeing to continued access to the countryside and fear that the proposed Kingsway Solar project would undermine the foundations of community life, including activity, reflection, learning and contribution. The strength of these feelings is reflected in the depth and detail of commentary provided, underscoring the central role of rural landscapes in both individual and community wellbeing.

What KSCA Asks from Kingsway Solar

- **Provide more substantial mitigation** to address visual impacts that are of high or medium magnitude, including removing panels from exposed fields, including undulating land and protecting existing long views.
- **Provide a greater number and wider range of LVIA viewpoints**, particularly along PRoW such as the Icknield Way, Roman and Fleam Dyke, as well as smaller local PRoW to Weston Colville, Weston Green and West Wratting (e.g. Mill Lane), to accurately represent the true visual impact for the Planning Inspectorate.
- **Conduct a detailed intra-project cumulative assessment** to quantify the combined visual impacts of the PV arrays, BESS and OHL on sensitive receptors.
- **Assess long-term wellbeing impacts** arising from permanent visual harm to residential receptors, recognising the stress and loss of amenity.

Socio-economics and Population Risk Analysis

Overview

KSCA has reviewed Kingsway Solar's socio-economic assessment in PEIR Volume 2, Chapter 14 and found that it relies on unverified data, incomplete modelling and deferred mitigation. In summary, it finds **no significant effects** across all receptors — a conclusion that depends heavily on assumptions, generic mitigation and deferred plans.

Employment and Economic Benefit

Kingsway Solar assumes that all employment would be additional ("zero displacement") and without the Scheme would not be generated, while also accepting that around two-thirds of the construction workforce will come from outside the local area (14.2.51).

The PEIR estimates that up to 1,199 ha of farmland—around 0.48% of Cambridgeshire's total—will be removed from production for up to 36 months, with further temporary losses along the grid connection route. This equates to around 18 FTE agricultural jobs, which the PEIR classifies as a "minor adverse, not significant" effect. However, this conclusion downplays the local and cumulative impact on active farms, rural livelihoods and long-term food production, which are likely to be substantially more significant at the parish level.

Construction phase

Local disruption

The PEIR concludes that construction impacts on air quality, noise and local businesses will be "negligible" or "not significant." However, this relies on unverified traffic data and assumes ideal management conditions. Given the narrow rural road network and heavy-vehicle use to and from nearby developments such as the Streetly End biodigester, even moderate increases in HGV traffic could cause localised disruption, safety risks and access delays, meaning the true impacts are likely to be greater than reported. For instance, construction routes through West Wratting and Weston Colville will expose nearby schools, homes and village halls to noise, dust and safety risks for an extended period.

Accommodation and Tourism Displacement

The PEIR estimates that up to 900 construction workers may be employed at peak, with between 3% and 30% expected to require temporary accommodation. It concludes that this would use only 23–33% of Cambridgeshire's available serviced accommodation, resulting in a minor, short-term beneficial effect due to increased local spending.

While this may hold at a county level, the assessment overlooks localised pressures in rural areas near the site, where visitor accommodation is limited. A sudden influx of non-local workers could reduce availability for other visitors and cause short-term rental displacement in nearby villages. Overall, the regional economic benefit is likely modest, while localised disruption to rural accommodation may be understated.

Experience from Hinkley Point C showed that without purpose-built worker accommodation and clear management plans, such an influx of outside workers can strain rural housing, inflate rents and displace visitors.

PRoW and Community Access

The Kingsway Solar facility site includes a well-used network of PRoW. These routes are an important part of local life (see section on *Health and Wellbeing*).

Several PRoW cross the proposed site and will be affected during the 24–36 month construction phase and during operation. (See also Public Rights of Way (PRoW) and Non-Motorised User Impact Analysis).

In early June 2025, a community walk took place from West Wratting, around a selection of local paths (Figure S&P 1), following exactly the sort of route that local people use for recreation, including dog walking. The impact of panels on this is shown in part in figures S&P 2 and 3.

Figure S&P 1. Route of Community Walk marked in dashed yellow line.

Figure S&P 2. View from position A. Panels proposed across the whole field of view, each side of the footpath heading away towards Weston Colville

Figure S&P 3.View from position B, looking towards position A and beyond. This view would be dominated by nearby panels, and panels would be visible around the wind farm (if not obscured by the nearby ones)

Operational phase

During the operational phase, Kingsway Solar is expected to provide around 10–15 full-time equivalent jobs, mostly in maintenance and monitoring roles, offering only a minor economic benefit to the region.

The project will however, result in the long-term loss of productive agricultural land, continuing the displacement effects identified during construction. Although the PEIR suggests some land could be used for grazing, this represents a significant change in land use and employment character over several decades.

Noise and air-quality effects are claimed to be negligible, but these rely on limited data, with maintenance traffic and BESS noise impacts largely untested locally. There is no reference to noise associated with the 250 inverters which are to be distributed amongst the solar PV arrays, and no account is taken of the effects of noise on NMUs, as these are considered to be *“transient receptors”*. Given the very wide spatial distribution of emitters, and hence the duration of impact on a passing NMU, this is considered to be unacceptable (see also sections on *Noise and Vibration Analysis* and *PRoW Analysis)*.The PEIR also assumes

there will be no effect on non-agricultural businesses or accessibility, despite ongoing traffic movements.

The most significant operational impacts are landscape and visual, with the PEIR identifying major to moderate adverse effects on the local landscape character areas *“e.g. Users of PRoW network within the Developable Areas, Balsham and Burwell, Users of the Devils Ditch, Users of local road networks and residents located to the north/east of Burwell, to the east, south and west of Developable Area C.”* (14.5.55.) There are also moderate effects on heritage assets, including Weston Colville Hall and St Mary’s Church, due to the altered setting and visibility of large-scale solar arrays and pylons.

Community Access

During operation, PRoW 251/18, which connects Weston Green and Carlton, would remain permanently closed for its 260 m section at the north-western end (see Figure PRoW 1). The alternative route suggested by Kingsway Solar adds roughly 13.5% (220 m) to the route length and redirects users along a farm track and yard, replacing the current open, rural path, which runs parallel with the River Stour. The footpath continuing north to Carlton would become a dead end. Kingsway Solar’s assessment describes this as only a “minor and temporary” impact.

Although the PEIR classifies this as a “minor adverse, long-term but not significant” effect, this underestimates the true impact. The diverted route would alter the amenity of the walk into a less attractive and more industrial-feeling corridor. It would also result in the loss of a popular circular walk with an avenue of trees and views across the open fields.

Solar arrays and access routes would have a substantial effect on the major trunk route of the footpath network in Weston Colville, where a substantial number of residents use the footpaths daily. In addition to the KSCA Community Survey showing high levels (>90) of appreciation of the footpath network, previous community surveys have identified the footpath network as the top priority amenity for residents in the village. The bridleway leading north from Horseshoe Lane is planted with over 50 trees by local villagers commemorating the importance of the path to local people and the exceptional views to the east and west, as well as south back towards the village, from the gently rising path – known locally as ‘The Avenue’. According to the PEIR, both sides of The Avenue would be empanelled along nearly its entire length and a new haulage route built both across and adjacent to its northern and southern ends, thus effectively enclosing the entire path. None of these effects are acknowledged in the PEIR despite the loss for the community being both substantial and irrevocable.

Because these changes would persist throughout the operational and decommissioning phases – and potentially beyond – the impact should be considered long-term (and in some cases permanent) and locally significant, affecting community access, landscape enjoyment and wellbeing. As such, Kingsway Solar’s assessment downplays the cumulative and qualitative loss to public amenity and the operational impact on PRoW 251/18 should be reassessed as a moderate adverse effect, not “minor.”

Cumulative Effects

The PEIR's cumulative assessment concludes that combined effects with other major projects such as Sunnica, East West Rail and Fens Reservoir would be minor and not significant. However, this view overlooks the real local overlap of large-scale infrastructure across South and East Cambridgeshire.

Together, these schemes would remove over 8,000 ha of farmland—around 3% of the county's agricultural capacity—and intensify pressure on rural roads, public rights of way and landscapes. The PEIR focuses narrowly on abstract job and GVA figures while ignoring local cumulative effects such as traffic congestion, dust, amenity loss and long-term visual intrusion. The combined impact on farmland, rural access and community wellbeing is likely to be moderate to major adverse, not "minor," and must be fully reassessed at the Environmental Statement (ES) stage.

Mitigation

The PEIR proposes to minimise disruption to community, recreational and healthcare facilities through standard measures set out in the Outline Construction Environmental Management Plan (CEMP), Construction Traffic Management Plan (CTMP) and Public Rights of Way Management Plan (PRoWMP), with access maintained "where practicable."

However, all detailed mitigation—including controls for dust, noise, traffic routing and access—is deferred to the post-consent stage, with no specific commitments for nearby schools, nurseries or healthcare sites. Engagement with local authorities and parish councils is mentioned but without a monitoring framework or binding obligations.

This approach is generic and procedural, offering no enforceable protections for vulnerable receptors or local amenities. In the absence of defined, site-specific measures such as restricted HGV routing, real-time air-quality monitoring, or community communication protocols, residual impacts on community and healthcare facilities are likely to remain moderate adverse during construction and minor adverse during operation.

What KSCA Asks from Kingsway Solar

- **Publish a detailed Construction Environmental Management Plan** (CEMP) and Construction Traffic Management Plan (CTMP) before DCO submission, including defined dust, noise and vibration limits, HGV routing, timing restrictions and monitoring locations.
- **Finalise and share the Outline Public Rights of Way Management Plan** (OPRoWMP) with clear closure limits and with guaranteed public access wherever practicable.
- **Treat schools, nurseries and healthcare facilities as high-sensitivity receptors**, with specific mitigation such as buffer zones, air-quality and noise monitoring and restricted HGV access during sensitive hours.
- **Provide a transparent employment assessment,** showing gross, net and local job figures with clear evidence for all assumptions.

- **Publish seasonal accommodation and occupancy data** to demonstrate that temporary workforce demand will not displace local visitors or tourism.
- **Secure written confirmations from healthcare, police and emergency services** that local capacity can accommodate any temporary non-local workforce and increased road use.
- **Establish a Community Liaison Group**, including parish council representatives, to oversee construction impacts, communication and complaints handling.
- **Deliver a Community Benefit Package** supporting local infrastructure, wellbeing projects and environmental enhancement throughout the project's lifespan.

Air Quality Risk Analysis

Overview

KSCA has reviewed Kingsway Solar's Air Quality Assessment (PEIR Volume 2, Chapter 13) and found that it lacks essential evidence and defers key controls that should already be in place. Although the report cites the Institute of Air Quality Management (IAQM) and EPUK/IAQM guidance[32][33][34][35], it does not apply to them fully. Current best practice makes clear that large construction projects must, at consultation stage, set out exactly how dust and vehicle emissions will be managed and monitored. Kingsway Solar has not done this. This leaves local communities and consultees unable to judge how air-quality impacts will be controlled or whether proposed measures are adequate.

Construction Impacts

The main air quality risks will occur during construction, when large-scale earthworks and heavy goods vehicle (HGV) traffic will generate dust and diesel emissions. Dust can travel several hundred metres, affecting nearby homes, farms and PRoW. Diesel exhaust from construction vehicles is a known source of nitrogen dioxide (NO_2) and fine particulate matter ($PM_{2.5}$), both linked to heart and lung disease.

Kingsway Solar's PEIR Volume 2, Chapter 13 recognises these risks, but proposes to manage them through a Construction Environmental Management Plan (CEMP) and a Construction Traffic Management Plan (CTMP) that will only be completed **after consent.** In their current outline form, these plans include only generic measures such as water sprays and switch-off policies, with no site-specific monitoring, dust suppression strategy or enforcement details.

This approach does not follow IAQM 2024 *Guidance on the assessment of dust from demolition and construction,* which requires dust-control measures and monitoring to follow their assessment procedure:

> *Dust Assessment Report should be determined by its author(s) it is important that there is sufficient descriptive text for a third party to determine how the emission magnitude and sensitivity of the area surrounding the site, and hence the site risk, have been determined.*

Unverified Traffic Data

Kingsway Solar's emissions modelling is based on unverified HGV numbers. Until a full CTMP is produced, there is no way to confirm whether the predicted levels of traffic pollution

[32] Institute of Air Quality Management. Guidance on the Assessment of Dust from Demolition and Construction. London: IAQM; 2023.
[33] Institute of Air Quality Management. Construction Dust Risk and Mitigation: Updated Good Practice Guidance. London: IAQM; 2024.
[34] Environmental Protection UK, Institute of Air Quality Management. Land-Use Planning & Development Control: Planning for Air Quality. London: EPUK/IAQM; 2017.
[35] Institute of Air Quality Management. Guidance on Monitoring in the Vicinity of Demolition and Construction Sites. London: IAQM; 2018.

are accurate. This approach conflicts with DEFRA's Local Air Quality Management Technical Guidance (TG22, 2022)[36] and National Highways' DMRB LA 105: Air Quality (2022)[37], both of which require validated and realistic traffic data for reliable air-quality modelling.

In the PEIR (Volume 2, Chapter 13, 13.2.13 and 13.5.5), Kingsway Solar applies screening thresholds of 100 HDVs or 500 light-duty vehicles (LDVs) per day to conclude that no significant effect is likely. However, actual traffic volumes remain unconfirmed. The report states that if these thresholds are exceeded, detailed dispersion modelling will only be undertaken at the Environmental Statement (ES) stage (13.9.4). This means the current findings are preliminary and scientifically uncertain, providing no firm assurance on construction-phase air quality impacts.

Operational Emissions Ignored

Kingsway Solar has excluded operational emissions from its assessment, assuming that maintenance traffic will be minimal (13.2.3). Given the scale of the project, this assumption is untested and unsupported by evidence. Over a 40-year operational life, even limited maintenance movements could contribute to local air pollution, particularly on rural roads close to homes and farms.

The PEIR Volume 2, Chapter 13, 13.2.3 and 13.2.15 excludes operational traffic emissions entirely and defers assessment of BESS fire emissions to a future Battery Fire Safety Management Plan, contrary to guidance from the Institute of Air Quality Management (IAQM) (*Land-Use Planning & Development Control: Planning for Air Quality*, 2017, Section 2.2.2),[38] which states that operational impacts should not be scoped out without quantitative data demonstrating a negligible effect (section 6.27 on Describing the Impacts).

Local Monitoring and Risks to Residents

Kingsway Solar has not carried out any local air quality monitoring near the proposed site, instead relying on regional background data from South Cambridgeshire District Council (SCDC) to represent conditions across the area. The PEIR Volume 2, Chapter 13, 13.3.3–13.3.4 confirms that no particulate matter (PM_{10} or $PM_{2.5}$) measurements have been taken by SCDC or East Cambridgeshire District Council (ECDC) and that estimated 2024 background concentrations of nitrogen dioxide (NO_2), PM_{10} and $PM_{2.5}$ in the study area, derived from DEFRA's 2021-based background maps, have been used. This lack of site-specific evidence makes it impossible to verify whether the modelling reflects real local conditions.

At the same time, key mitigation plans and monitoring details have been deferred, leaving no enforceable dust or emissions controls in place. **Predicted air-quality impacts are therefore based on assumptions rather than measured data.** The PEIR relies on general statements that dust will be managed through "*best practice*" but provides no clear evidence

[36]Department for Environment, Food & Rural Affairs. Local Air Quality Management: Technical Guidance (TG16). London: DEFRA; 2021–2024.
[37]National Highways. Design Manual for Roads and Bridges (DMRB) LA 105 – Air Quality. Birmingham: National Highways; 2019–2024.

[38] Land-Use Planning & Development Control: Planning For Air Quality. January 2017. Available from: https://www.iaqm.co.uk/text/guidance/air-quality-planning-guidance.pdf (accessed October 2025).

of how or where this will be applied. It also fails to identify specific residential receptors within 250 metres or to assess the potential impact on vulnerable groups such as children, older people and those with respiratory conditions.

Guidance from the IAQM (2024) states that homes, schools and community sites within 250 metres of construction activity are classed as high-sensitivity receptors and require a site-specific dust risk rating and tailored mitigation.[39] The absence of this assessment in Kingsway Solar's PEIR means that residents currently have no clear protection from dust nuisance or potential health effects.

Cumulative Impacts

The PEIR (Volume 2, Chapter 13, Section 13.8) concludes that there are no other development schemes within 250 metres of the site and therefore considers cumulative air-quality effects to be "not significant." Given the scale and pace of development in South Cambridgeshire, a much broader cumulative assessment area is essential. The region is currently experiencing overlapping large-scale projects, including:

- Major housing schemes such as the proposed Grange Farm new settlement near Abington and the potential Westley Green (Six Mile Bottom Estate) expansion;
- Transport and infrastructure developments such as the new Park & Ride facility and the East Anglian Air Ambulance (EAAA) base near the A11;
- Energy infrastructure projects including the Sunnica Solar facility and other solar schemes connecting to the Burwell South Substation; and
- The recently approved anaerobic digester at Streetly End, which will significantly increase heavy goods vehicle (HGV) movements through Balsham and surrounding villages.

The cumulative traffic associated with these projects — particularly from HGV movements linked to the construction of Kingsway Solar facility, the anaerobic digester and other energy infrastructure — presents a substantial risk of compounded dust, emissions and road safety impacts. This is especially concerning given the constrained rural road network and limited emergency access routes.

Cumulative screening must therefore be revisited at the ES stage using verified and up-to-date planning and traffic datasets. Without this, the combined effects of construction traffic, dust generation and operational emissions across multiple projects will be substantially underestimated. Rural communities along the A11 and A1307 corridors, including Balsham, West Wratting and Streetly End, are already under significant development pressure, and the cumulative environmental and social burden must be fully assessed and transparently reported.

[39] IAQM 2025. Available at: https://iaqm.co.uk/wp-content/uploads/2013/02/Construction-Dust-Guidance-Jan-2024.pdf (accessed October 2025)

What KSCA asks from Kingsway Solar

- **Publish a detailed Construction Dust and Emissions Management Plan** (CDEMP) prior to examination, setting out clear and enforceable measures for dust suppression, wheel washing, vehicle speed limits and monitoring trigger levels, as required by IAQM 2024 guidance.
- **Release a full draft Construction Traffic Management Plan** (CTMP) before DCO submission, including verified HGV numbers, routing and timing data so that emissions modelling can be independently validated.
- **Provide a complete Construction Environmental Management Plan** (CEMP) that integrates specific dust, emissions and traffic controls with measurable performance indicators and monitoring requirements.
- **Undertake site-specific baseline air-quality monitoring for $PM_{2.5}$, PM_{10} and NO_2** at the nearest homes, schools and community sites before construction begins, to establish accurate reference data and enable post-construction comparison.
- **Supply audited traffic and dispersion-modelling data at the ES stage, not post-consent,** to ensure accurate assessment of localised impacts.
- **Quantify operational and maintenance traffic over the 40-year lifespan of the project,** to capture ongoing emission sources and cumulative effects.
- **Carry out a full site-specific health and nuisance risk assessment for all receptors** within at least 250 metres of active construction areas, including sensitive sites such as homes, schools and community facilities, as required by IAQM (2024).
- **Update cumulative impact assessments** to include all concurrent local developments — including the Streetly End anaerobic digester, new Park & Ride and East Anglian Air Ambulance base near the A11 — to ensure realistic evaluation of combined transport and emissions impacts.

Health, Mental Health and Wellbeing Risk Analysis

Overview

Kingsway Solar's PEIR (Volume 2, Chapter 16) presents an incomplete picture of the project's potential effects on human health and wellbeing. The Health Impact Assessment (HIA)—the document intended to assess direct and indirect health effects—has been deferred to the Environmental Statement (ES). This means the consultation proceeds without quantified data on health outcomes, despite policy requirements for early integration of health evidence under the National Planning Policy Framework (NPPF)[40].

Deferred Health Impact Assessment (HIA)

The PEIR confirms that the HIA will be completed "as part of the ES". However, South Cambridgeshire District Council has already directed that the HIA **must include mental health and wellbeing**, which have so far been omitted. Deferring this key document denies both the public and decision-makers essential information on potential harms and mitigation measures.

PEIR Appendix 16.3 outlines only a method statement, not an assessment. It states that the HIA will *"draw on other technical chapters"* (Noise, Air Quality, LVIA, Socio-economics), meaning that any data gaps in those areas will cascade into the HIA. The approach is descriptive rather than analytical and omits measurable health indicators or outcome metrics. Furthermore, while the method acknowledges potential "mental health and wellbeing" effects, it frames these mainly as positive socioeconomic benefits rather than psychosocial harms from industrialisation, noise and safety anxiety.

The HIA also depends on national datasets and "proportionate consultation" with public-health teams, offering no commitment to participatory engagement or integration of local evidence. As a result, the KSCA Community Survey (Appendix A) remains the only dataset that quantifies local health effects.

Cumulative Amenity Loss and Mental Health Risk

The PEIR recognises "potential perceived change in amenity" but fails to assess the combined effects of visual industrialisation, long-term noise and lighting from the solar PV arrays, BESS compounds and overhead line (OHL).

By excluding cumulative stressors, Kingway overlooks how the scheme could diminish rural tranquillity and increase chronic stress and anxiety, which is unacceptable.

[40] NPPF 2024. Available from: https://assets.publishing.service.gov.uk/media/67aafe8f3b41f783cca46251/NPPF_December_2024.pdf (accessed October 2025)

Battery Energy Storage System (BESS) Safety Risks

The Cambridgeshire Fire and Rescue Service[41] advises that all sensitive receptors within 1 km of the BESS site should be identified and assessed for potential impact in the event of a fire or thermal runaway. This requirement underscores the need for plume modelling and emergency planning before consent, not after. The absence of a full Battery Safety Management Plan means potential exposure to toxic gases and smoke remains unquantified. Beyond the physical risks, uncertainty about safety has measurable effects on community wellbeing, contributing to stress and reduced confidence in local resilience.

Construction Nuisance and Vulnerable Groups

The PEIR claims that health impacts from construction "will not be significant" and "temporary in nature". However, key control documents—including the Construction Traffic Management Plan (CTMP) and Construction Environmental Management Plan (CEMP)—have been deferred until post-consent. This means there are currently no enforceable limits on dust, vibration, noise or HGV emissions. Vulnerable groups such as children, the elderly and those with respiratory conditions will face the highest exposure to these unmanaged risks.

The KSCA Community Survey (Appendix A) highlights how essential quiet, natural surroundings are for mental health and wellbeing, particularly for vulnerable people:

> *"We moved to the countryside to live in the countryside. The proposed development would encircle our whole village — we'd be living inside a solar farm. We have children with autism and mental health needs, and access to green space and peace and quiet is what gives them a good quality of life. We'll have to move if this goes ahead."*

> *"The impact it is already having on my physical & mental health is massive. I have rheumatoid arthritis and stress brings on excruciating pain lasting for days, weeks sometimes months. How I manage symptoms is by walking the footpaths around the village and being in nature. Every time there's something happening with the solar farm I've experienced a flare up & ended up in horrible medications & being physically unwell, leading to bouts of depression."*

This reflects a wider concern shared by many residents: that the loss of tranquillity, space and connection to nature would have a serious impact on mental health and quality of life for families across the area.

> *"We bought our house because of the fields around us, loving the views. Since we moved, the countryside has helped my wellbeing and mental health. I love seeing all the wildlife when walking. I am really worried about what is going to be put on the land around our home. I am worried about the wildlife, the health implications for us, and the noise."*

[41] Cambridge Fire and Rescue Service Late Scoping Consultation Response. Available at: https://nsip-documents.planninginspectorate.gov.uk/published-documents/EN010165-000027-EN010165%20Cambridgeshire%20Fire%20And%20Rescue%20Late%20Response.pdf (accessed October 2025).

These omissions directly contradict the Health and Care Act 2022[42], which places a duty on authorities to consider population health in planning decisions.

Long-term Wellbeing Stressors

The PEIR does not assess psychosocial effects from permanent changes to the landscape. For local communities, the transformation of a quiet, open agricultural area into a vast industrial energy complex represents a sustained stressor. Chronic exposure to noise, visual intrusion and safety concerns can contribute to anxiety, sleep disruption and loss of place attachment—core components of wellbeing identified in the NHS Five Steps to Wellbeing model 2020[43](Connecting, Being Active, Taking Notice, Learning, Giving).

Additional Weaknesses from the HIA Method Statement

The HIA Method Statement claims it will consider "Major Accidents and Disasters" (Appendix 16.3 p. 5), but provides no framework or modelling for these scenarios. There are no quantified thresholds, exposure metrics, or mental-health indicators. The PEIR also admits that the HIA will "carry through any assumptions and limitations from those individual assessments" (Appendix 16.3 p. 9), meaning that incomplete or uncertain data from other chapters will automatically weaken health conclusions. Together, these omissions confirm that the HIA as proposed cannot meet statutory health-assessment standards.

What KSCA Asks from Kingsway Solar

- **Complete and publish the full HIA** before DCO submission, including quantified assessment of physical and mental health with cumulative amenity and psychosocial factors.
- **Recognise PRoW and access routes as wellbeing assets**, assessing effects of operational noise, lighting and fencing on recreational users and equestrians.
- **Integrate local community evidence,** including the KSCA Community Survey (Appendix A), to capture lived health experience.

By excluding mental health, omitting cumulative and safety-related stressors and relying on unverified assumptions, Kingsway Solar has failed to meet national policy requirements for safeguarding health. Until these steps are taken, the health and wellbeing evidence base remains incomplete.

Community Evidence: A Response to the PEIR and the Missing Health Impact Assessment

The KSCA Community Survey (June–September 2025; Appendix A) provides the only available dataset quantifying local health implications of the Kingsway Solar proposal.

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[42] https://www.legislation.gov.uk/ukpga/2022/31/contents
[43] Five Steps to Wellbeing 2020. Available at: https://www.nhs.uk/mental-health/self-help/guides-tools-and-activities/five-steps-to-mental-wellbeing/ [accessed October 2025)

Conducted with 211 residents and in part structured around the NHS Five Steps to Wellbeing framework, it measures lived experience of wellbeing in relation to environmental change.

What the Community Survey Reveals

- **89.9%** foresee negative wellbeing impacts.
- **97.1%** value tranquillity and natural views.
- **96.7%** link outdoor access to health.
- **90.5%** connect countryside access with quality of life.
- **92.9%** oppose the project; **86.3%** strongly oppose.
- **87%** cite visual industrialisation; **83%** cite construction disruption.
- **76%** report mistrust or dissatisfaction with consultation.

These results demonstrate that wellbeing harms are not speculative—they are widely anticipated and deeply felt. The data reveal systematic, multi-dimensional loss of wellbeing across the Five Steps to Wellbeing, particularly *Being Active*, *Connecting with Others* and *Taking Notice*.

A Mismatch Between Technical and Community Knowledge

The PEIR frames effects as “not significant,” while both the LVIA (PEIR Volume 2, Chapter 7) and Noise and Vibration (Chapter 12) acknowledge impacts that are “significant and cannot be fully mitigated.” This inconsistency undermines credibility and trust. Residents demonstrate strong awareness of renewable energy policy, indicating principled opposition grounded in fairness, scale and environmental stewardship, not in resistance to clean energy itself.

KSCA Survey Conclusions

The community survey corrects major omissions in the PEIR by providing measurable, people-centred data on health and wellbeing.

Where the PEIR minimises or defers health impacts, the survey demonstrates that these are experienced as profound and enduring harms, threatening not only physical comfort but also social cohesion, psychological resilience and quality of life.

Until the Kingsway Solar provides a complete HIA with quantified wellbeing outcomes, KSCA’s community evidence remains the only valid dataset available to decision-makers evaluating the human consequences of the Kingsway Solar proposal.

Glint and Glare Risk Analysis

Overview

KSCA has reviewed Kingsway Solar's handling of glint and glare, defined as the reflection of sunlight from solar panels that can affect road users, rail safety, nearby homes and aircraft. Kingsway Solar's PEIR confirms that a full quantitative assessment is deferred to the Environmental Statement (ES) and that only an outline of methodology and receptor scoping has been provided (PEIR Volume 2, Chapter 16:5). This means the public, National Highways, Network Rail and aviation authorities cannot yet see data showing when, where or how strong reflections could be.

Missing Safety Information

The PEIR explicitly states that the full Glint and Glare Study will be submitted with the ES, not at consultation. It notes that "worst-case" modelling and mitigation will be included later, leaving no receptor-level findings available now. This omission prevents a full understanding of potential reflection impacts on drivers, rail operators and nearby residents.

Transport Safety

Kingsway Solar's layout includes over 430 hectares of fixed-tilt panels, which can create intense low-angle reflections during early morning and late afternoon. The PEIR confirms that 209 road receptor points and 246 residential receptors have been identified but no modelling results are provided at PEIR stage.

Impact on Homes and Public Rights of Way

While glint and glare are often treated as transport issues, they also pose a **nuisance risk** to residents and PRoW users. The PEIR lists residential receptors but provides no modelling or visualisation for these locations. Guidance such as *GLVIA3*[44] and *GG 142*[45] classify walkers, cyclists and horse riders as high-sensitivity receptors, requiring site-specific analysis. Without this, the project cannot demonstrate that local amenity or visual comfort will be protected.

The PEIR's Zone of Theoretical Visibility (ZTV)[46] also appears to be based on modelled terrain data, not real screening from hedgerows or vegetation, which could either under- or overestimate true visibility. The absence of clarity makes it impossible to verify whether reflection effects are realistically represented.

Aviation and Aircraft Safety

The PEIR lists aviation receptors, including Cambridge Airport, Duxford Aerodrome and Addenbrooke's Hospital helipad, but again no receptor-level modelling is provided at this

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[44] Planning Inspectorate. Cleve Hill Solar Park: Appendix 17 – Glint & Glare Guidance. Bristol: PINS; 2019.

[45] Pager Power. Solar Photovoltaic Glint & Glare Guidance. 4th ed. Sudbury: Pager Power; 2022.

[46] National Grid. Visual Assessment and Zone of Theoretical Visibility (ZTV) Methodology, Appendix 7.1. London: National Grid; 2025.

stage. The document states that “mitigation for aviation receptors will be refined through consultation,” meaning assessments are not yet complete. This approach leaves unassessed potential glare exposure for low-flying aircraft, including emergency helicopters and general aviation.

The East Anglian Air Ambulance (EAAA) plans to establish a new base near Fulbourn (Balsham Road next to the A11)[47]— an important receptor not mentioned in the PEIR, although it does mention the Helipad at Addenbrooke’s Hospital.

The site also lies within the UK Low Flying System, where military and civilian helicopters are permitted to operate at altitudes as low as 250 feet.[48] In addition, it is positioned beneath the Stansted Airport air traffic holding pattern (stacking route)[49]. The proximity to Duxford Airfield—one of the UK’s busiest heritage, display and training airfields[50]—further heightens aviation safety concerns. Duxford operates a wide range of vintage and light aircraft, many of which have highly reflective canopies and limited glare tolerance. The potential for solar panel glint and glare in this airspace could therefore pose a significant visual hazard for pilots, particularly during approach and training manoeuvres (see Figure G&G 1).

These combined factors make the Balsham–Linton area one of the most aviation-sensitive rural zones in Cambridgeshire, yet the PEIR does not include an aviation-specific glare analysis.

What KSCA Asks from Kingsway Solar

- **Publish the full Glint and Glare Study**, including modelling results for all road, rail, residential, recreational and aviation receptors.
- **Engage directly with National Highways, Network Rail, the CAA, Duxford Airfield, Stansted Airport and the EAAA** to agree on receptor lists and assessment methods before DCO submission
- **Include residential and PRoW receptors in full modelling** to quantify glare nuisance and confirm compliance with *GLVIA3* and *GG 142*.
- **Add an aviation glare assessment** covering:
    - Low-altitude helicopter operations (including EAAA)
    - Military and emergency low-flying activity
    - Duxford-based general aviation
    - Stansted’s controlled airspace and holding routes.

[47] Cambridge Independent. EAAA Announces Plans for New Fulbourn Air Base. Cambridge: 2025.
[48] Ministry of Defence. Low Flying in Your Area – UK Low Flying System Overview. London: MOD; 2025.
[49] Civil Aviation Authority. UK Aeronautical Information Circular – Controlled Airspace: Stansted (CTA/CTR/Stack Entry). London: CAA; 2024.
[50] Civil Aviation Authority. UK Aerodrome Safeguarding Map – Duxford Aerodrome and GA Air Corridors. London: CAA; 2024.

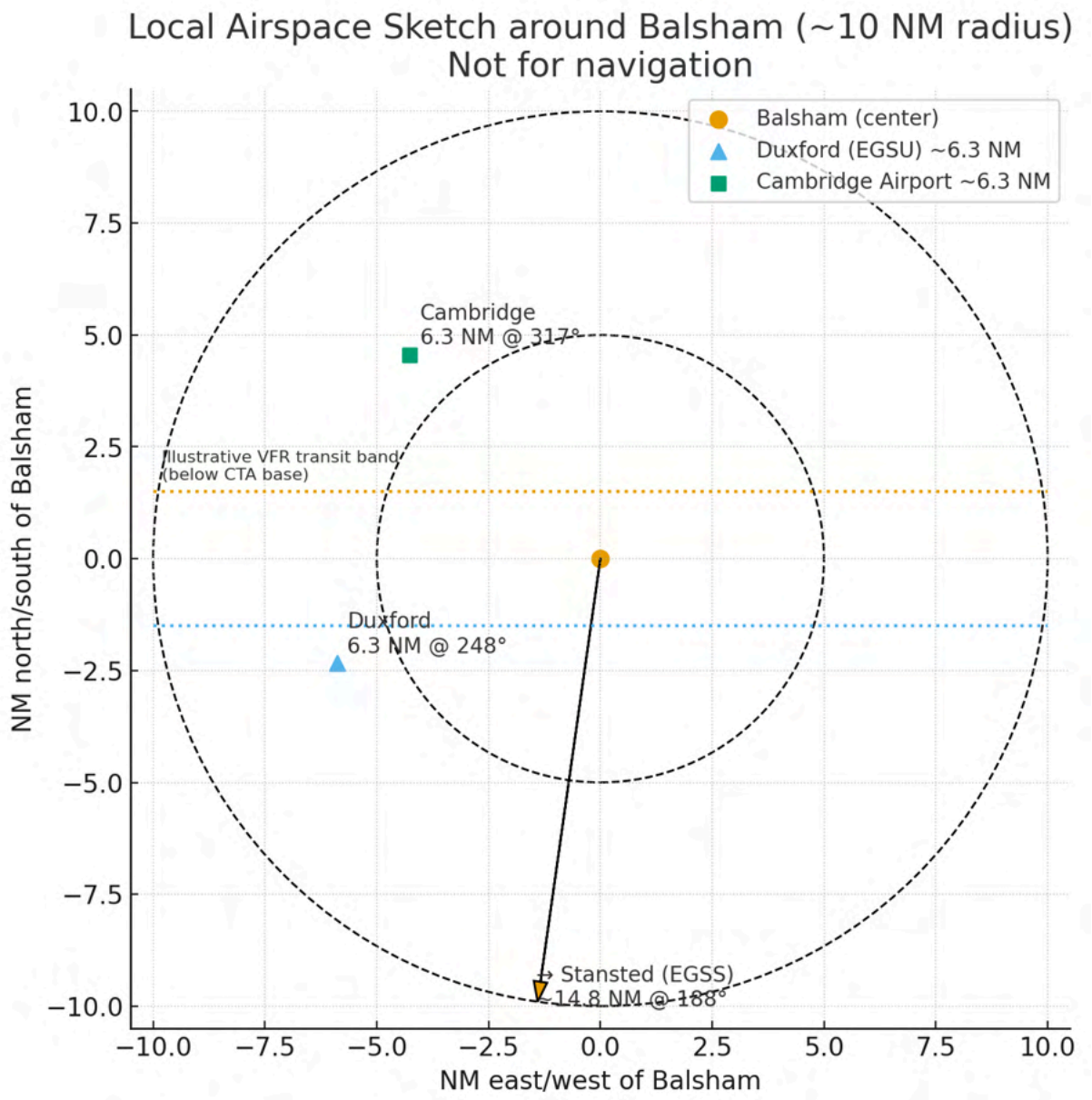

Figure G&G 1: Local (A) airspace sketch for Balsham—10 NM radius with Duxford plotted and a direction to Stansted.[51]

[51] NATS (Air Information Service). Chart of UK Areas of Intense Aerial Activity and Avoidance Corridors. London: NATS; 2024.

Best and Most Versatile (BMV) Agricultural Land and Soil Assessment Analysis

Quantity and Grade of BMV Land

Kingsway Solar's Agricultural Land Classification (ALC) Report confirms that the **majority of the Kingsway Solar facility site comprises Best and Most Versatile (BMV)** agricultural land (approximately 62-63% of the available agricultural land)**.**

Soil grades are presented in two places, PEIR Volume 2, Chapter 10 (Soils and Agriculture). paragraph 10.5.4 and PEIR Volume 4 Appendix 10.2. These present differing quantities, which appear to be related to the change in system boundaries. These two sets of areas are presented in Table BMV1 below for comparison. However, both show that BMV land comprises between 62-63% of available agricultural land (which constitutes over 96% of the total Order Limits). The discrepancies illustrate a lack of attention to detail by Kingsway Solar in presenting the PEIR.

	Vol 2, Ch 10, 10.5.4		Cumulative totals		Vol 4, App 10.2		Cumulative totals	
	ha	%	ha	%	ha	%	ha	%
Grade 1	1.8	0.1	1.8	0.1	1.9	0.2	1.9	0.2
Grade 2	180.6	12.2	182.4	12.4	164.9	13.8	166.8	13.9
Grade 3a	736.7	49.9	919.1	62.3	586.1	48.9	752.9	62.8
Grade 3b	544.3	36.9	1463.4	99.1	433.4	36.1	1186.3	98.9
Grade 4	12.9	0.9	1476.3	100.0	12.9	1.1	1199.2	100.0

Table BMV1 Stated ALC land areas in PEIR Volume 2, Chapter 10 and PEIR Volume 4 Appendix 10.2. Percentages of cumulative BMV land totals are highlighted in yellow.

- Grade 1 (excellent quality agricultural land) - BMV
- Grade 2 (very good quality agricultural land) - BMV
- Subgrade 3a (good quality agricultural land) - BMV
- Subgrade 3b (moderate quality agricultural land) - Non-BMV
- Grade 4 (poor quality agricultural land) - Non-BMV

Limitations: A detailed ALC survey has not yet been undertaken for the Grid Connection Corridor and Inter-Array Areas. Consequently, only provisional ALC data have been used to assess these parts of the site. In addition, the ALC assessment relies on assumed chalk depths based on averaged data, rather than comprehensive site-specific testing. This introduces a significant degree of uncertainty in the classification of Subgrade 3a land, thereby undermining the reliability of the reported ALC results.

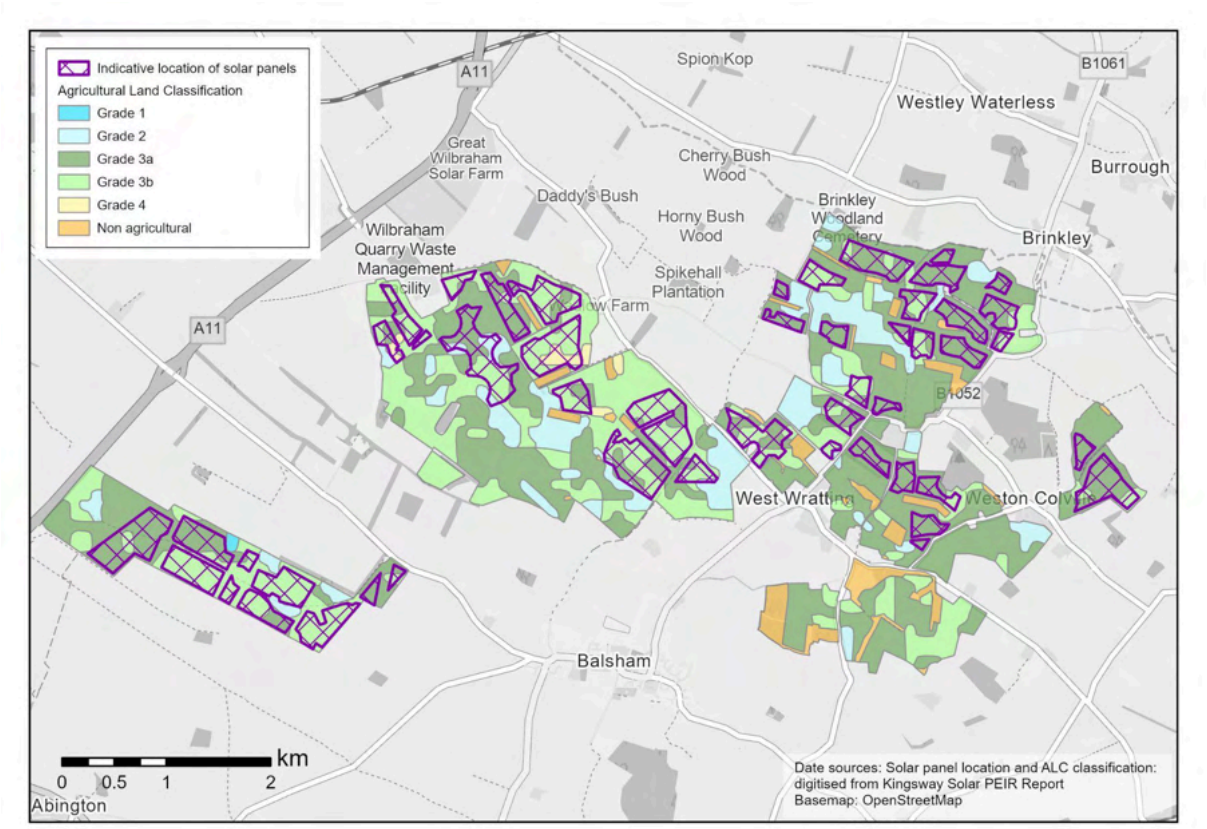

Figure BMV 1: This shows Grades 2 and 3a (BMV) land overlain with proposed solar arrays. Note the original PEIR Volume 3, Figure 10.4: Provisional Agricultural Land Classification Map has now been updated following an email to Kingsway Solar. The updated detailed ALC map is now Appendix 5.

BMV and Siting of Solar Panels and Infrastructure

The ALC map clearly identifies the proposed development site as mainly comprising Grade 2 and Grade 3a land (plus a small amount of Grade 1 in Land Parcel A); these are categorised as Best and Most Versatile (BMV) agricultural land. During the consultation process, Kingsway Solar staff suggested that the layout of the solar panels had been designed to utilise areas of lower soil quality within the site. This appears to be verified when overlaying the map showing ALC grades with the positioning of the solar panels (Figure BMV 1).

However, the PEIR itself appears to contradict itself:

- **10.5.4 states:** *The design has been developed in such [sic] no permanent infrastructure will be placed on Grades 1 and 2 land and Grades 3a has been avoided wherever practicable."*
- **10.5.5 states:** *"The results of the ALC survey have been used to determine the design of the Proposed Development in that Grades 1 and 2 have only been used for solar PV array areas."*

This again suggests the PEIR was produced in haste, containing errors and showing a lack of quality control, resulting in a document that lacks transparency.

As the ALC map demonstrates, there are **few, if any, areas of genuinely lower-grade land** within the site boundary. While small pockets of 3b and 4 occur, these are **isolated and discontinuous**. The overall site therefore represents some of the most productive agricultural land in the region.

In reality, the scale and footprint of the proposal make it impossible to locate the solar panels on non-BMV land, as very little such land exists within the identified site. This reinforces the view that the proposal fails to comply with national policy requirements under EN-3, which direct developers to prioritise lower-grade or previously developed (brownfield) land for renewable energy infrastructure wherever possible (see section on Alternative Site Selection).

From the KSCA Community Survey, one respondent stated:

> *The land is already under threat from housing, road and rail expansion. Solar panel installations on the scale proposed will take even more land away from agriculture. This in turn will compromise the UK's food security and mean an increase in food miles for imported food supplies. Taking land out of food production for the life span of the solar panel installation will also have detrimental effects on the soil. We will not only lose the farms but also the skills needed to run them and the support industries that supply them.*

It is understood from discussions with Kingsway Solar that land not allocated to solar panels will either be converted to pasture for sheep grazing or retained for arable farming. However, since this land is being leased from the current landowners and then leased back for agricultural use, it raises concerns that it could later be repurposed for additional solar development. This uncertainty offers no guarantee that the land will remain in agricultural use and increases the potential long-term impact on the landscape, environment, and local communities.

Comparing Arable Land and Sheep Pasture in terms of Biodiversity Value and Soil Health

Under Natural England's Biodiversity Metric 4.0[52], habitat scores are determined by type, condition and distinctiveness rather than species presence alone.

As shown in Table BMV 2 below, intensively managed arable and improved pasture systems typically support *low-distinctiveness habitats* with poor-to-moderate condition and consequently low baseline biodiversity values. While such land offers potential for biodiversity uplift, this depends entirely on the quality and management of the post-development habitat mosaic rather than the land's ALC grade.

[52] Natural England. Biodiversity Metric 4.0: Technical Annex 2 and User Guide. York, UK: Natural England; 2024.

Land Management Type	Typical Habitat Type (BNG Metric 4.0)	Distinctiveness	Condition Range	Typical Biodiversity Value	BNG Uplift Potential	Notes / Key Considerations
Arable – intensive (cereal crops, root crops)	Cropland / Cereal crops	Low (Score 2)	Poor–Moderate	Low species richness; limited structure; few nectar or nesting resources	High potential* (if converted to grassland, scrub or habitat mosaic)	Uniform monocultures; heavy inputs; low baseline value useful for BNG uplift
Arable – low-input / rotational with fallow	Cropland with margins or rotational set-aside	Low–Medium (2–4)	Moderate	Margins or fallows provide modest habitat; some pollinator and bird use	Moderate–High potential*	Wildlife-friendly practices (margins, cover crops) increase baseline slightly
Pasture* – improved (fertilised, reseeded)	Modified or improved grassland	Low (Score 2)	Poor–Moderate	Species-poor swards; low floral and structural diversity	Moderate potential	Common under sheep; biodiversity limited by uniform sward and inputs
Pasture – semi-improved / low-input grazing	Other neutral or calcareous grassland	Medium–High (4–6)	Moderate–Good	Mixed sward, flowering plants, invertebrates, birds	Moderate potential	Cattle or mixed grazing often maintains structural diversity

Pasture – species-rich / semi-natural	Lowland meadow, unimproved calcareous or acid grassland	High–Very High (6–8)	Good–Excellent	High biodiversity value; priority habitat	Low uplift potential (already high baseline)	Sensitive to overgrazing or reseeding; important to conserve existing value
Rewilding / natural regeneration (no intensive grazing)	Successional mosaic / scrub / woodland edge	High–Very High (6–8)	Good–Excellent	High structural and species diversity; supports multiple taxa	High long-term potential	Suitable for BNG offsetting; slower ecological maturation

Table BMV 2: Natural England's Biodiversity Metric 4.0, habitat scores

*To achieve genuine uplift, a Land and Environmental Management Plan (LEMP) must specify varied sward structure, relaxed grazing pressure, buffer strips and field-edge habitat creation; without this, improved pasture under panels remains low-value.

The PEIR Volume 4, Appendix 10.4 (sections 10.1.10–10.1.11) concludes that soil effects will be *"short-term, reversible, local in extent and of negligible significance"* during construction and decommissioning, with a *"moderate beneficial effect"* during operation because arable cropping would be replaced by grassland. However, this assumption is not supported by evidence. Studies such as Carvalho et al. (2025)[53] demonstrate that conversion of arable to solar pasture frequently leads to increased soil compaction, reduced organic carbon and lower vegetation productivity, unless actively managed through restorative measures.

The absence of a Land and Environmental Management Plan (LEMP) at this stage prevents the quantification of such impacts or validation of Kingsway Solar's claims that solar panel design and grassland management will improve soil quality and lead to biodiversity net gain. Without clear prescriptions for panel spacing, grazing intensity, reseeding regimes and soil monitoring, it is impossible to determine whether soil degradation will be mitigated—or potentially exacerbated—over the project's lifespan. Soil monitoring should include baseline and periodic sampling for bulk density, soil organic matter (SOM %) and biological indicators such as earthworm counts and VESS structure scoring, with results published annually.

The assumption that soil quality will "benefit" simply because arable production ceases is therefore scientifically unsound and contradicts the stated policy purpose of protecting BMV land**,** which is to maintain the nation's long-term agricultural productivity and flexibility.

Sheep grazing beneath solar panels—especially where swards are uniform, improved, or maintained at high stocking densities—typically produces low-diversity, improved grassland. Under Natural England's Biodiversity Metric, such habitats are classed as low distinctiveness and in poor to moderate condition, offering limited potential for ecological uplift. Intensive grazing suppresses flowering plants, reduces invertebrate diversity and simplifies habitat

[53] Carvalho F, Montag H, Bentley L, et al. Plant and soil responses to ground-mounted solar panels in temperate agricultural systems. Environ Res Lett. 2025;20(2):024003. doi:10.1088/1748-9326/ada45b

structure, contradicting the claimed biodiversity benefits. By contrast, adopting regenerative farming principles[54] in areas not occupied by panels would likely deliver far greater biodiversity gains, yet this approach does not appear to have been considered.

The idea that Kingsway Solar plans to use the land ‘not under panels’ for sheep grazing or farming lacks credibility (see Expert commentary). Normal farmland rents for about £700 per acre each year, but Kingsway Solar is reportedly paying around £1,500; this is more than twice the going rate. Kingsway Solar are not farmers, so they would have to hire contractors to manage the land, adding even more cost. Moreover, the land does not currently have established grass suitable for grazing, and preparing and reseeding it would require significant investment and time before it could sustain livestock. In standard grazing arrangements, sheep keep the grass down and fertilise the land in exchange for access, providing no real income to the landholder. It is therefore economically implausible that Kingsway Solar would pay such high rents, undertake additional preparation costs and then allow sheep grazing for little or no return. The claim of using the land for sheep or farming looks like a convenient cover, not a genuine plan.

More importantly, the proposed shift from productive arable land to fenced pasture would significantly alter the local ecology. Arable fields and fallow land currently provide valuable winter foraging habitat for many declining farmland bird species, including skylark, yellowhammer and linnet, which rely on seed-rich stubble and open field structures for feeding and shelter. Research shows that fallow and set-aside fields are among the most beneficial habitats for overwintering birds and that landscape diversity, including stubbles and hedgerows, supports the highest biodiversity levels (Neyens et al, 2023[55]; Bosco et al 2024[56]). Converting this landscape to managed pasture under solar panels would remove these ecological features, reducing food availability and habitat diversity, thereby undermining local farmland biodiversity. Kingsway Solar has not explained how such a transformation could realistically support existing overwintering bird populations or deliver a measurable biodiversity net gain.

In this locality, many farms already practise reduced tillage, rotational cropping and fallow management, which likely confer higher baseline biodiversity and soil organic content than assumed in the PEIR. Local iRecord data confirm the presence of notable flora and fauna within and adjacent to the proposed development area, further indicating a richer baseline than represented. The conversion from arable to managed pasture under solar panels will likely reduce farmland biodiversity, disrupt overwintering bird populations and risk soil degradation.

Soil Degradation under Solar Panels

PEIR Volume 2, Chapter 10, section 10.5.10 states: *“There will be no further loss to agricultural land quality following the construction phase of the Scheme. Therefore, there are*

[54] Tree I. Wilding: The Return of Nature to a British Farm. London, UK: Picador; 2018.

[55] Neyens T, et al. *Landscape composition and configuration jointly determine farmland bird communities and functional diversity in winter.* Landsc Ecol. 2024;39(2):451–467.

[56] Bosco L, et al. *Assessing the ecological impacts of solar parks on farmland biodiversity: a systematic review and meta-analysis.* Ecol Indic. 2023;157:110258.

no additional operational effects beyond what has already been assessed during construction."

Further, in section 10.5.11 it states: *"By converting land currently used for arable farming to grassland there is reduced soil disturbance which will help to increase soil organic matter. By increasing soil carbon, the soil will have improved structure, soil ecosystems and water infiltration which will therefore increase overall soil health."*

Recent research by Carvalho et al. (2025) examined 32 ground-mounted solar farms across England and Wales to assess vegetation and soil responses. The study found that areas beneath solar panels had lower plant cover, biomass, and soil organic carbon, alongside greater compaction and altered nutrient levels compared with surrounding land. These impacts were primarily linked to shading, microclimatic change and prior agricultural management. Soils between panel rows, however, were more comparable to adjacent pasture, suggesting that the design and management of the array—including panel height, spacing and vegetation management—are critical in determining ecological outcomes. The authors concluded that careful design and proactive management can mitigate degradation and maintain ecosystem function.

In the context of the Kingsway Solar proposal, the absence of a detailed Land and Environmental Management Plan (LEMP) prevents objective assessment of how these known effects will be addressed. Without a clear management framework, it is impossible to determine whether proposed design measures—such as panel height, row spacing, drainage and grazing regime—will mitigate or exacerbate soil compaction, carbon loss, or nutrient imbalance.

Furthermore, reliance on an Outline Soil Management Plan (SMP), with detailed content deferred until post-consent, undermines transparency and pre-determination scrutiny. This approach conflicts with best practice under the DEFRA Construction Code of Practice for the Sustainable Use of Soils (2018)[57] and with the Town and Country Planning (Environmental Impact Assessment) Regulations 2017[58], which require adequate information on likely significant effects and mitigation at the decision-making stage. A comprehensive LEMP and SMP should therefore be required prior to consent to ensure effective soil protection and long-term ecosystem resilience.

Construction Impacts on Groundwater and Soil Management

Construction activities such as trenching, cable installation and heavy vehicle movement risk compacting the superficial aquifer and increasing surface runoff, creating direct pathways for pollutants such as fuel, oil and silt to enter groundwater. The Soil Management Plan (SMP) and Drainage Strategy are incomplete, leaving these risks unaddressed.

[57] Department for Environment, Food and Rural Affairs (DEFRA). Construction Code of Practice for the Sustainable Use of Soils on Construction Sites. London, UK: DEFRA; 2018.
[58] Town and Country Planning (Environmental Impact Assessment) Regulations 2017. Available at: https://www.legislation.gov.uk/uksi/2017/571/contents (accessed October 2025)

Cumulative Impact of Solar Developments

PEIR Volume 2, Chapter 10, section 10.8.1 states: *"There are no cumulative effects identified for agricultural land quality and soil ecosystems. This is because there are currently no other committed or reasonably foreseeable schemes located within the 1km zone of influence applied to the assessment of these receptors."*

It goes on to look at cumulative effects of NSIPs within the Cambridgeshire region and the loss of BMV land being 0.82% of all the BMV land within this region. However, this assessment completely ignores the fact that the Kingsway Solar development lies on the border with Suffolk and the approved Sunnica project (DCO granted July 2024) which lies in East Cambridgeshire and areas of West Suffolk.

New research from the CPRE[59] shows that nearly 60% of England's largest solar facilities are built on productive farmland, with around one-third occupying the nation's (BMV) agricultural land. Despite planning policies intended to protect high-quality soil, over half of large solar sites include BMV land, amounting to 827 hectares—the equivalent of 1,300 football pitches—of Grades 1 to 3a farmland now covered by solar panels. While national figures suggest that solar farms currently occupy only around 0.4% of the UK's total land area, this distribution is highly uneven. In some districts—such as Sleaford and North Hykeham—solar installations already cover approximately 7% of total land area (CPRE, 2025), representing a disproportionate concentration of energy infrastructure on productive farmland.

Despite this, no meaningful cumulative assessment has been undertaken for the Kingsway Solar facility in relation to other large-scale solar proposals across the region. Evaluating each project in isolation obscures the combined and long-term effects on agricultural capacity, landscape character, rural economies and food security. The cumulative loss of Best and Most Versatile (BMV) land, particularly where multiple developments cluster on Grades 2 and 3a soils, risks a progressive and largely unmonitored erosion of national food production potential.

This incremental, piecemeal approach contradicts the Environmental Impact Assessment Regulations (2017),[60] which mandates the consideration of "in-combination effects", and fails to meet the intent of NPS EN-1 and the NPPF (2025), both of which emphasise the sustainable use of land and protection of soil resources.[61]

A comprehensive, strategic review is therefore urgently needed to evaluate the cumulative impact of existing, approved and proposed solar developments before further consents are granted. Such an assessment should integrate land use, biodiversity, soil quality and food production capacity, ensuring that renewable energy deployment proceeds in a spatially balanced and environmentally responsible manner.

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[59] CPRE 2025. Available from: https://www.cpre.org.uk/news/two-thirds-of-mega-solar-farms-built-on-productive-farmland/ (accessed October 2025)
[60] EIA Regulations 2017. Available at: https://www.gov.uk/guidance/environmental-impact-assessment. (accessed October 2025)
[61] National Policy Statements for energy: appraisal of sustainability - post adoption statement
Available at:
https://www.gov.uk/government/publications/national-policy-statements-for-energy-appraisal-of-sustainability/national-policy-statements-for-energy-appraisal-of-sustainability-post-adoption-statement#:~:text=As%20such%2C%20EN%2D1%20aims,Water%20quality%20and%20resources (accessed October 2025)

Flawed Reversibility Claim

From recent correspondence with Kingsway, it has been said that:
Upon the start of the decommissioning phase, above-ground physical infrastructure would be dismantled and removed. It is assumed that any below ground infrastructure will be left in situ following decommissioning, subject to best industry practice, obligations to landowners and the relevant statutory requirements. The land would be restored to its original use (typically agricultural) and returned to the relevant landowners once the decommissioning phase is complete.

Kingsway Solar asserts that any soil impacts will be *"reversible"* and that the scheme will deliver a *"moderate beneficial effect"* on soil quality once arable production is replaced with grass cover.

This claim is scientifically unsound and misleading. Construction across more than 750 hectares of BMV land will involve extensive trenching, piling, cabling, vehicle trafficking and material storage, all of which risk deep compaction, subsoil deformation and disruption of natural drainage. Kingsway also proposes mounting panels on concrete platforms or pads rather than pile-driven supports. This approach can significantly reduce soil permeability, disrupt natural drainage patterns and impede vegetation growth beneath and around the panels. The resulting soil compaction and habitat loss diminish opportunities for biodiversity enhancement and carbon sequestration. Claims that decommissioning will *"restore the land to its original ALC grade"* and that impacts will therefore be temporary are not credible. In short, the PEIR's assumption of reversibility and *"moderate benefit"* lacks empirical support and downplays long-term risk to soil function.

Research consistently shows that once soil structure and porosity are lost, water infiltration, aeration and root penetration are permanently reduced, limiting future crop yields and soil biodiversity (Natural England 2020; DEFRA 2018; Carvalho et al. 2025). Compaction beyond 30 cm is rarely reversible within typical agricultural rotations even with deep subsoiling, confirming that claims of full restoration lack scientific basis. Furthermore, the ALC grading system measures inherent soil characteristics, not short-term land use. Therefore, claims that land will simply return to its previous ALC grade after 40 years ignore cumulative physical and chemical degradation processes. Such structural damage can persist for decades and is rarely fully reversible even following decompaction or reinstatement works.

What KSCA Asks from Kingsway Solar

- **Provide** a full sequential alternative site assessment demonstrating that lower-grade or previously developed (brownfield) land has been prioritised in accordance with National Policy Statement EN-3 and NPPF (2025) requirements.

- **Undertake and publish** a comprehensive cumulative impact assessment covering Kingsway Solar and other existing, approved and proposed large-scale solar developments within the region. This review must evaluate combined effects on BMV land loss, landscape character, biodiversity and food production capacity.

- **Submit** a complete, evidence-based Land and Environmental Management Plan (LEMP) prior to any consent. The plan must set out measurable targets for Biodiversity Net Gain (BNG), grazing intensity, soil monitoring and long-term habitat management, to be subject to independent expert review and public scrutiny.

- **Submit** the full Soil Management Plan (SMP) prior to approval, rather than deferring key details post-consent. This should include soil stripping, storage, reinstatement and compaction-avoidance measures consistent with the DEFRA (2018) *Construction Code of Practice for the Sustainable Use of Soils on Construction Sites*.

- **Address** deficiencies in the ALC methodology, including reliance on averaged chalk depth data. KSCA requests comprehensive site-specific soil sampling and validation to accurately determine the extent of BMV land affected.

- **Provide** legally binding, financially secured guarantees ensuring that more than 750 hectares of BMV land will be fully restored to its baseline agricultural condition at decommissioning, with independent verification of soil structure, chemistry and fertility.

- **Guarantee** that all land not used for solar PV infrastructure will remain in agricultural use or for BMV (e.g. ecological and landscape enhancement) throughout the operational lifetime of the project and will not be repurposed for future solar expansion or other industrial uses. This commitment should be formalised within the DCO and supported by legally enforceable covenants.

- **Clarify and evidence** claims of environmental benefit, particularly the assertion that conversion from arable BMV land to sheep-grazed grassland represents a net ecological gain. Supporting data must include baseline biodiversity assessments, habitat condition scores (*BNG Metric 4.0*) and post-operation monitoring commitments.

Expert commentary on Planning Policy and Agricultural Land Classification for Solar Development

My experience is relevant here, as for some years I was involved in dealing with this issue on behalf of landowners and solar developers, usually on projects of less than 50 MW. My background is in farm management and I am a chartered rural surveyor and valuer. I also hold qualifications in agronomy and in the applied science of growing most broadacre cereal and oilseed crops.

My work with regard to solar developments was most often to demonstrate why the use of better-quality land was justified. This often relied on real evidence of how the land had been treated or farmed and why its real-world characteristics meant it either did not meet the definition of BMV land, or that the use of such land could be mitigated.

Until recently, the National Planning Policy Framework commented specifically on the treatment of "Best and Most Versatile" (BMV) land in relation to the development of agricultural land, which was particularly relevant to solar arrays due to the larger area of land required for such developments.

Development of solar arrays of 50 MW and above often takes place on greenbelt sites, usually on agricultural land. The NPPF acknowledges that there should be criteria for choosing land that is most suitable for these purposes, and that the primary purpose of agricultural land is food production.

BMV land is defined as falling within Agricultural Land Classification (ALC) Grades 1–3a. This system was introduced in England in the mid-1960s by the Ministry of Agriculture, Fisheries and Food (MAFF) and published in Technical Note 11. Its purpose was to identify land on which development should be avoided. It identifies land in five basic grades numbered 1 to 5.

The initial survey of agricultural land occurred between 1967 and 1974 using Ordnance Survey maps on a 1-inch to 1-mile scale. These are broad-scale maps, meaning that they only serve as a guide without the accuracy to classify individual fields.

Subsequent work in this classification system after 1988 divided Grade 3 into two sub-grades, 3a and 3b. Determining the ALC grade of a particular site does not rely on a comprehensive map of England and Wales; instead, it is determined by a qualified specialist undertaking detailed analysis of specific sites and their soils, following established protocols (specifically those set by MAFF in 1988). This work determines empirically the ALC grade into which specific sites fall.

Kingsway Solar have instructed ADAS to undertake this work, and their extensive report constitutes Appendix 10.4 of Volume 4 of the PEIR. This report has determined that 60.47% of the Developable Area falls within Grades 1–3a and therefore constitutes BMV land.

In December 2024, a revision was made to the National Planning Policy Framework to modify footnote 62 (now 65), which specifically addressed BMV land and required developers to justify its use and demonstrate the sustainability of the development. There is no doubt that this reduces the weight placed on the issue of BMV land when planning officers or the Secretary of State are considering giving the development approval. However, it does not remove it entirely, as footnote 65 still obliges developers that "where significant development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality."

The ADAS work has demonstrated conclusively that most of the proposed developable area is of higher quality, falling within ALC Grades 1–3a. Kingsway Solar appear to have either misunderstood or, more likely, dismissed this. In Table 1 in Appendix 10.3 to Volume 4 of the PEIR, they state that "there is no longer a need to consider food production in land use planning terms." This is simply not true, as the NPPF footnote 65 reflects.

Furthermore, Kingsway Solar go on to state that since the Developable Area constitutes less than 0.02% of the Utilisable Agricultural Area (UAA) of the UK, the impact of the development is negligible. To employ this statistic is absurd, since the UAA includes every

square inch of the UK that can be used for some form of agriculture, including high mountains and all pastureland. A more detailed study of the document referenced (Agriculture in the United Kingdom 2024, published by DEFRA) breaks down the UAA into further categories. For instance, of the 17 million hectares of UAA, the total croppable area was 6.2 million hectares, and the area cropped with cereals within that was 3 million hectares.

This reflects the fact that land varies in quality, which is precisely why the ALC grading system exists. The fact remains that the Kingsway Solar facility is proposed on better-quality agricultural land, and the NPPF states that poorer-quality land should be preferred for this purpose.

I now address some of the most commonly articulated arguments in favour of using better-quality (specifically BMV) land despite its high-quality grading:

One argument is that the cropping history of the land demonstrates it is restricted to growing only lower-value commodity crops (such as cereals, oilseeds and legumes) as opposed to higher-value roots or vegetables. Therefore, since Britain generally produces an annual surplus of these crops, the loss of the land from production is said to be insignificant.

However, in the last production year the UK was a net importer of wheat, as a consequence of a much lower harvest (11 million tonnes compared to the five-year average of about 15 million tonnes). Severe weather events have seen the total planted area to cereals, particularly wheat, fall sharply twice in the last five years, eroding stocks and increasing reliance on imports, particularly of milling wheat, which Grade 2 and 3a land is certainly capable of growing.

Furthermore, the suitability of the land for high-value crop production has as much to do with the grower's ability, access to water (the area of non-irrigated potatoes in the UK continues to fall as the risk of crop failure becomes too high for growers to absorb) and willingness to invest in irrigation systems or other infrastructure, such as farm roads and tracks, essential to permit the growing and harvesting of sugar beet, for instance.

Another argument often advanced is that the development is only temporary and that the land can be returned to agricultural use at the end of the lease. This is entirely unproven and, without some covenant on the developer to do so, unreliable.

Kingsway Solar also maintain that large portions of the developable area will be able to be grazed with livestock. While it is true that, in general, soil organic matter increases in land under long-term pasture compared with arable cultivation, this argument bears little weight in practice.

Most grazing livestock production in the UK is in the western regions or uplands. Due to the size and fragility of the panels, grazing with cattle is unrealistic, and sheep represent the only realistic option. It is much more difficult than many suppose to successfully cultivate good grazing grassland under solar panels due to uneven rainfall and near-constant shading; it is even more difficult to maintain it. Generally, only weed species such as docks, thistles and brambles thrive. Consequently, grassland under solar panels tends to offer grazing of very

poor quality and is unlikely to attract graziers, even if East Anglia had sufficient numbers of sheep and suitable infrastructure.

Furthermore, livestock grazing without adequate fencing, water supplies and handling systems is untenable. There are also many examples of the difficulties in managing sheep grazing under panels due to gates and fences separating enclosures and difficulties retrieving dead or injured stock. As a mitigation for the loss of agricultural land, livestock grazing is highly impractical in this situation.

Since the NPPF requires developers to choose poorer-quality land over better-quality land, it seems reasonable that Kingsway Solar should demonstrate why they have chosen this site over land closer to the point of grid connection.

The Soil Survey of England and Wales was a nationally significant piece of work undertaken in the 1970s to complete a thorough geological survey of all soils and their properties in England and Wales. It is a comprehensive piece of work supported by extensive detailed mapping, identifying soils by their geological origins and dividing them into Associations and Series. It goes further to identify their particular properties and their suitability for different agricultural uses and crop production types. Furthermore, it identifies limiting factors and their variability in any given year for supporting agricultural machinery operations.

The Soil Survey of England and Wales is not used to determine the Agricultural Land Classification (ALC) grade or included in the definition of BMV land. This is unfortunate, as it would be a much better indicator of which are the better soils and would do so with a high degree of mapping accuracy.

However, with expert knowledge it is possible to use soil survey information on individual series to estimate the likelihood that a particular soil association or series will fall into one of the agricultural classification grades. This is the basis for generic maps available in the public domain, prepared by Natural England and other bodies, which give an indication of which land is likely to fall into which ALC grade. However, these maps are only indicative and cannot be relied upon for planning applications.

The Soil Survey of England and Wales maps show that the prevailing association on the northern side of Weston Colville and West Wratting is Swaffham Prior (511e), which continues towards Burwell, meaning the land grade closer to the substation is no worse than that chosen in the developable area. These soils are freely draining, lime-rich loamy soils to slightly acidic loamy and clayey fine loamy brown earths over clay, which is suggestive of Grade 3 land. Topsoil stoniness and droughtiness are the two ALC grade characteristics most significant in determining ALC grade; the only way to empirically determine whether the land nearer the substation is better or worse would be to survey it. However, available data on www.magic.defra.gov.uk *shows areas surveyed between the developable area and Burwell as being predominantly Grade 3a and 3b, with less Grade 2 land.*

The following paragraphs provide a summary of how agricultural land is treated under English planning law in relation to solar energy development and have been provided by the expert cited above. All information referenced is publicly available, though its interpretation requires a degree of technical and policy understanding.

National Planning Policy Framework (NPPF)

The National Planning Policy Framework (NPPF) sets out the Government's expectations for how local planning authorities should manage development in England. Introduced in 2012, it replaced numerous Planning Policy Statements and Guidance Notes and established a *presumption in favour of sustainable development*.

Crucially, for large-scale solar projects, the NPPF establishes a **clear preference for avoiding the development of Best and Most Versatile (BMV) agricultural land**. BMV land is defined as Grades 1, 2 and 3a under the Agricultural Land Classification (ALC) system.

The NPPF acknowledges that development consumes land which may be suitable for other purposes. In the case of residential or commercial development, the framework generally prioritises brownfield sites and places strict tests on the loss of greenbelt land. However, solar facilities of 50 MW and above — which are typically located on agricultural land — fall into a more ambiguous category.

While the NPPF supports renewable energy, it requires that the **primary purpose of agricultural land (food production) be safeguarded wherever possible**. Food security is therefore recognised as a matter of both sustainability and national security. Developers must demonstrate that any proposal involving BMV land is justified and sustainable, showing that lower-grade or previously developed alternatives have been properly considered and discounted.

Earlier versions of the NPPF and accompanying Ministerial Statements placed stronger emphasis on this protection, but recent revisions (including in 2024) have weakened this position, partly following government commitments to several 500 MW solar schemes such as Sunnica in East Cambridgeshire. Solar projects of this scale are classed as Nationally Significant Infrastructure Projects (NSIPs) under the Planning Act 2008.

Agriculture Act 2020

The **Agriculture Act 2020** is tangentially relevant to planning but significant in context. It represents the first major agricultural policy reform following the UK's withdrawal from the EU and establishes an environmentally focused framework for farm support. The Act places limited emphasis on commercial agriculture or food production.

Notably, food security was omitted from early drafts of the legislation and was only introduced following lobbying by the National Farmers Union (NFU) and others, resulting in a requirement for the Secretary of State to report to Parliament on the UK's food security status every five years. Consequently, the Act provides limited support for arguments that land should be prioritised for food production over alternative uses such as energy generation.

Best and Most Versatile (BMV) Land

BMV land encompasses Grades 1, 2 and 3a of the Agricultural Land Classification (ALC). These are the most productive soils, capable of supporting a wide range of crops with minimal limitations.

By contrast, Grade 3b land is typically found on heavier boulder clays common across southern and central England and is more restricted in use. Grade 4 land is higher, less accessible and generally confined to pasture, while Grade 5 land includes upland moor and heather, which is unsuitable for cultivation.

Thus, BMV land broadly corresponds to the most productive arable soils in England, representing a nationally important resource for food production.

The Soil Survey of England and Wales

The Soil Survey of England and Wales, undertaken in the 1970s, remains a landmark scientific assessment of soil properties and distribution. It mapped soils by geological origin, identifying series and associations with detailed notes on texture, drainage and agricultural suitability.

However, the Soil Survey is *not* used to determine ALC grades and is therefore not directly part of the planning definition of BMV land. This is unfortunate, as the survey provides a much more accurate indication of soil quality and cropping potential.

Nevertheless, by applying expert interpretation, it is possible to use Soil Survey data to infer the probable ALC grade of a given area. Natural England and other organisations have published indicative maps based on this principle. These are useful for broad understanding but are **not reliable enough for planning decisions**, which must rely on site-specific ALC surveys.

Agricultural Land Classification (ALC) Grading System

The **ALC system** was introduced in the 1960s by the Ministry of Agriculture, Fisheries and Food (MAFF) and formalised in Technical Note 11. It grades land from 1 (excellent) to 5 (very poor), with the intention of identifying land that should be protected from development.

The initial national mapping (1967–1974) was carried out at a coarse scale (1 inch to 1 mile) and was never intended for field-level classification. In 1988, MAFF revised the system, splitting Grade 3 into 3a and 3b, but the subsequent survey coverage was limited.

Accurate grading therefore requires **site-specific investigation** by qualified soil scientists following the 1988 MAFF guidelines. Developers of large-scale solar schemes typically commission such surveys to demonstrate compliance with NPPF policy.

However, the ALC system has important limitations. It focuses on intrinsic soil characteristics such as wetness, stoniness and texture, not on **current soil condition or productive value**. It provides a broad indication of capability rather than a holistic measure of soil health or agronomic performance.

Consequently, a brief reference to ALC grades within a planning document offers a **crude and incomplete picture of true agricultural value**. It may not adequately represent the real-world importance of land for food production or the environmental costs of losing it.

Application to Solar Development

Where a site is found to include BMV land, the NPPF requires the developer to demonstrate that the project remains sustainable. However, the ALC system's simplicity often obscures real local complexity.

For example, Grade 2 or 3a soils may in practice behave more like 3b land due to topography, drainage, stoniness, or irrigation constraints. Conversely, some poorer soils may perform well under modern management. This variability means the **loss of land to solar development cannot be justified solely on ALC grade** without consideration of local productivity and context.

Developers often argue that if a particular grade predominates across a district, avoiding it is impractical. Yet, this reasoning undermines national policy intent: that BMV land should be preserved unless there are exceptional circumstances and clear evidence that no viable alternatives exist.

Sequential Analysis

A fundamental planning principle — *sequential analysis* — requires that development proposals demonstrate why lower-grade or less sensitive sites were not chosen. This principle is applied rigorously in other forms of development but rarely in large-scale solar applications.

Developers typically justify this by citing the need for a grid connection, which limits site flexibility. However, from a planning standpoint, **the need for grid proximity does not negate the requirement to demonstrate that BMV land loss is unavoidable**.

Soil Condition and Health

The ALC system reflects inherent soil properties, not actual condition or health. Routine agricultural soil testing, carried out typically every four years, measures nutrient indices (e.g., phosphate, potassium, trace elements), pH and organic matter content. While useful for crop management, these tests reveal little about the **biological health** of soils (including earthworms, fungi, structure and aeration) which underpin long-term productivity.

Depletion of nutrients can be corrected relatively quickly, but damage to soil structure and biological life takes decades to repair. A holistic soil assessment, therefore, provides a truer measure of sustainability than ALC grading alone.

Summary

The current planning approach relies too heavily on the **simplified ALC grading system** and the brief NPPF reference to BMV land. These provide an inadequate framework for

determining whether the permanent industrialisation of farmland for solar development is justified.

A more robust approach would integrate:

- Holistic assessments of soil health and productivity;
- Sequential analysis demonstrating that BMV land loss is truly unavoidable; and
- Transparent consideration of cumulative effects on regional food production capacity.

Without these measures, planning decisions risk permitting the **progressive erosion of England's most productive agricultural resource** — a loss that cannot easily be reversed.

How the Expert Commentary Supports KSCA's Findings

This expert commentary complements KSCA's analysis by providing a technical and policy-based explanation of how agricultural land should be assessed under English planning law for solar development. It clarifies the statutory protection of BMV land under the NPPF and demonstrates that the current planning approach—reliant on simplified ALC grading—is insufficient for assessing real agricultural value or sustainability. It also clarifies that biodiversity and agricultural value are distinct.

The commentary strengthens KSCA's argument that the Kingsway Solar proposal conflicts with national policy, as it fails to demonstrate that lower-grade or brownfield sites were properly considered and that the loss of productive farmland is unavoidable.

Waste and Decommissioning Risk Analysis

Overview

KSCA has reviewed PEIR Volume 2, Chapter 16 (Other Environmental Topics) and finds that the waste and decommissioning assessment is incomplete, inconsistent and overly reliant on unsubstantiated assumptions about future recycling technology.

Incomplete Waste and Construction Information

Based on KSCA's research, solar panels are typically shipped in 40-foot containers, stacked on pallets (20–30 panels each) and secured with shrink wrap, banding and other protective materials. However, the PEIR (16.4.16) simply assumes that *"landfill capacity will remain approximately the same"* and that any additional waste can be accommodated by Local Authorities—an assumption with no supporting evidence.

It is unclear whether construction waste will be removed and disposed of locally or whether on-site mitigation or recycling methods will be used. The PEIR provides no evidence that packaging materials will be optimised for recycling or that Kingsway Solar intends to adopt best-practice waste minimisation measures for construction and workforce-generated domestic waste. Without defined waste-handling routes or recycling commitments, there is a clear risk of increased landfill use and local traffic impacts.

Assumed Recycling Methods

The PEIR (16.4.9, 16.4.17) assumes that recycling technologies will advance over the lifetime of the scheme, reducing landfill dependence. However, it provides no quantified data, identified facilities or supporting analysis to justify this assumption. Given the absence of established UK infrastructure for solar panel or lithium-ion battery recycling, this claim is speculative. Without a quantified waste inventory or Decommissioning and Site Restoration Plan, the scheme underestimates long-term waste volumes, landfill demand and environmental risk.

Deferred Waste and Decommissioning Information

The PEIR (16.4.19–16.4.24, 16.4.45) confirms that the Site Waste Management Plan (SWMP), Outline Construction Environmental Management Plan (CEMP) and Decommissioning Environmental Management Plan (DEMP) will be produced only at the DCO stage, preventing current public or regulatory scrutiny.

Paragraphs 16.4.46–16.4.47 assert that decommissioning waste (including solar panels, cables, metals, concrete and aggregates) will have *"no significant effects"* and that landfill use will be *"minimal."* This is implausible given the scale of waste expected from over 700,000 panels, steel frames, foundations and 300 BESS containers, which will generate tens of thousands of tonnes of material requiring disposal.

Lack of Transparency and Accountability

- **Deferred Accountability:** By postponing the SWMP and DEMP, Kingsway Solar prevents residents from evaluating how waste and pollution will be controlled at the time of the stage two consultation. This *"trust-us-later"* approach is unacceptable for a 40-year nationally significant infrastructure project.
- **Financial Risk and Land Restoration:** More than 750 ha of Best and Most Versatile (BMV) farmland will be industrialised with no financial guarantee for restoration. If Kingsway Solar ceases trading, the financial burden of remediation and waste removal would fall on the public—contradicting the *polluter-pays principle* of the Environmental Protection Act 1990.
- **Hazardous Waste (BESS):** The PEIR (16.4.38) acknowledges that BESS units may require replacement every 5–15 years but provides no data on the scale, composition or disposal routes of lithium-ion and heavy-metal waste. These materials pose serious toxic and long-term contamination risks within local Source Protection Zones (see section on *BESS Analysis*).
- **Flawed Decommissioning Assumptions:** The claim that decommissioning impacts will be *"no worse than construction"* (16.4.47) and that landfill waste will be *"minimal"* is scientifically indefensible. Dismantling a solar farm of this scale involves degraded components, chemical residues and extensive transport operations with significant environmental and safety implications.

KSCA Assessment and Position

The absence of transparent waste and decommissioning planning undermines confidence in Kingsway Solar's ability to manage long-term environmental risks responsibly. Without defined waste-handling systems, recycling infrastructure, or financial safeguards, the scheme fails to meet the current statutory requirements.

What KSCA Asks from Kingsway Solar

- **Publish Full Lifecycle Waste Plans:** Kingsway Solar must release complete, auditable versions of the SWMP and DEMP as part of the Environmental Statement, detailing waste types, volumes, transport routes and recycling or disposal methods.
- **Secure a Financial Restoration Bond:** A legally binding, independently verified restoration bond must be established before consent to cover all future decommissioning and land-reinstatement costs.
- **Quantify and Manage Hazardous Waste Transparently:** The ES must include full estimates and end-of-life handling routes for lithium, cobalt and electrolyte waste from the BESS.
- **Re-evaluate Decommissioning Impacts:** Replace speculative assumptions with evidence-based modelling reflecting future regulatory standards, technological change and waste capacity 40 years ahead.

- **Independent Oversight:** Appoint an independent environmental auditor (via LPAs) to oversee waste and decommissioning compliance, with annual public reporting.

Conclusions

Across every section reviewed, the Kingsway Solar proposal shows serious deficiencies in design definition, evidence base and public accountability. To date, the assessment remains largely a desk-based exercise with very limited fieldwork or on-site surveys. The scheme relies too heavily on the Rochdale Envelope approach, deferring critical details on layout, routing of the Grid Connection Corridor and inter-array areas, mitigation, safety and restoration. This undermines the credibility of the consultation process and prevents the community which is most affected from assessing the true extent of the impacts.

In environmental terms, the PEIR fails to present a full or transparent account of how the development will avoid, reduce or compensate for harm. The loss of over 750 hectares of Best and Most Versatile farmland, the permanent visual and landscape damage and the unassessed risks to groundwater from the BESS are all inconsistent with the National Planning Policy Framework (NPPF) and National Policy Statements EN-1 and EN-3. These policies require that developments protect and enhance the natural and local environment, safeguard agricultural land, conserve landscape character and ensure that renewable energy infrastructure is appropriately sited and mitigated. The Kingsway proposal fails to demonstrate compliance with these core principles. Ecological surveys are incomplete, health impacts are deferred and waste, lighting and decommissioning strategies rely on assumptions rather than verifiable evidence.

From a community perspective, Kingsway Solar's overall consultation has been dismissive and unclear. Residents from Balsham, West Wratting, Weston Colville and nearby villages have shown themselves to be highly informed and articulate, yet have been given little opportunity to engage meaningfully or review key information. KSCA's findings show that local people are not opposed to renewable energy, but to this particular form of development which industrialises the countryside, degrades its natural value and diminishes the sense of place, peace and identity that define rural South Cambridgeshire life.

KSCA acts as an advocate for these communities, ensuring that their environmental, health and amenity concerns are represented clearly and fairly. We do so not in opposition to the green transition but in defence of a responsible and fair transition that protects rural character, food security, biodiversity and public wellbeing.

In conclusion, the Kingsway Solar scheme as presented is not the green transition we want. It represents an extractive and speculative approach that sacrifices long-term landscape integrity for short-term gain with questionable benefits. KSCA will continue to hold Kingsway Solar and its investors to account, pressing for transparency, open dialogue and a planning process that respects local knowledge as much as national energy goals. Until the deficiencies identified throughout this report are resolved, the project should be considered premature, environmentally unsound and socially unjust.

APPENDICES

Appendix A: KSCA Community Survey Findings 2025

Community assessments of the proposed Kingsway Solar project:

A report on the findings from a survey of local residents

KSCA

Kingsway Solar Community Action

Introduction

As temperatures warm and energy prices rise, it is clear that public support for renewables as part of the green transition has grown substantially and that alternative energy sources are increasingly popular. At the same time it is also evident that some green energy initiatives are more popular than others and that some of the current Net Zero policies being pursued by the UK government have become more, rather than less, controversial. One of the most important examples of this contrast between increasing support for renewable energy investment and rising opposition to government Net Zero policies in the UK is the current public and political outcry over large scale solar energy plants – especially in rural areas and in regions where the cumulative effect of numerous large solar projects increases concerns about their short and long-term impact.

Although we know from many previous studies of public perceptions of new technology – especially in sensitive areas such as food production or health – that high levels of engagement and dialogue are crucial to ensuring widespread public acceptance and support of them, the impact of large solar facilities on rural areas has been comparatively little studied in the UK. Some research, such as the Department for Energy Security and Net Zero (DENSNZ) public attitudes tracker, suggests there is consistent and rising public support for solar panel facilities, citing survey findings that a majority of the British public 'would be happy for a solar farm to be constructed in their local area'. Only less than 3% of the public, they claim, would be 'very unhappy' with such a prospect. (https://www.gov.uk/government/collections/public-attitudes-tracking-survey).

Our local study, the first of its kind to combine standard tick-box (Likert) scales with detailed qualitative data, paints a very different picture and indeed reveals almost entirely opposite results. Only two out of 211 respondents we surveyed – less than one percent – expressed unconditional support for a solar industrial facility to be built in their local area. Likewise, in contrast to the government's data, research for this study found that a substantial majority of over 90% are not at all 'happy for a solar farm to be constructed in their local area'.

More research is urgently needed to clarify the reasons people support and oppose large solar facilities. The issue has become increasingly divisive and fractious. This crucial source of green energy will not meet its potential if the public increasingly oppose its use. Moreover, the entire renewables sector, as well as the Net Zero goals that depend on it, will be compromised if public trust and support are lost.

This study was undertaken to support a more well-informed view of the role of local communities in the green transition and we welcome your comments, feedback and input in pursuit of this objective.

Kathy Day and Sarah Franklin on behalf of Kingsway Solar Community Action

Executive summary

This report presents findings from a community survey of 211 residents conducted between 8 June and 1 September 2025 concerning the Kingsway Solar project proposed for the Balsham, West Wratting and Weston Colville area of South Cambridgeshire.[1] The study was undertaken to provide a fuller, better-informed account of local views and feelings about the proposed Kingsway project, and to contribute to national discussion of the role of large-scale solar in the green energy transition, as well as to the second stage of the Kingsway Solar statutory consultation.

Using a mixed-methods approach, the survey covered five broad areas including community views of the Kingsway proposal; the green transition more generally; attitudes toward local landscape and agricultural heritage, nature and wellbeing; and hopes and concerns for the future. The survey generated an unusually large volume of material, including ~1,055 short-answer entries (~28,800 words) to open-ended questions. The findings therefore offer a “wide and deep” account of community perspectives, including assessments of potential impacts on the national economy and food security and the challenges of balancing land-use priorities for energy, agriculture, residential communities and environmental conservation. They also describe in detail respondents’ main concerns about the effects of the proposed facility on their own lives and those of their friends, families and communities. Typical answers span a broad range of interconnected topics—even within single responses—and frequently link protection of open countryside and rural lifeways with issues of community safety, safeguarding and wellbeing, including mental and physical health.

Overall, the dataset reveals very high levels of opposition to the proposed Kingsway project, with over 90.0% of respondents opposed and 86.3% strongly opposed. Opposition is based on multiple, overlapping concerns, with the five primary concerns summarised in Table 1.

Concern	Number	Percentage
Visual impact on the landscape	194	91.9%
Impact on wildlife or nature	190	90.0%
Loss of productive farmland	190	90.0%
Construction traffic or noise	182	86.3%
Poor communication or lack of transparency about the project	161	76.3%

Table 1: Main categories of concern about the proposed Kingsway Solar project (n = 211). Percentages represent the share of respondents selecting each concern in Section 5 Part 1 of the survey.

The five main concerns are interwoven with other prominent themes, including the exceptionally large scale of the project (218 mentions), its perceived encirclement of residential villages (48 mentions), the lack of consideration of more appropriate alternative site locations such as brownfield or rooftop options (92 mentions) and uncertainty about the long-term stewardship of the land (27 mentions).

Although respondents expressed strong support for the green transition, and a desire to contribute to it, the survey results suggest that they favour more sustainable alternatives such as rooftop solar, smaller and more dispersed solar energy facilities, the use of brownfield sites for industrial energy facilities and more joined-up community energy projects. These are viewed as measures that protect both the environment and agriculture without sacrificing rural communities, lifestyles or landscape character.

Although the survey did not include specific questions about the public consultation process, a strong and consistent theme throughout the dataset is widespread dissatisfaction with how the Kingsway Solar project has been presented to local communities, with more than three-quarters of respondents (76%) indicating dissatisfaction with the consultation process.

The most frequently expressed concerns centre on the lack of meaningful community participation or engagement, a perceived disregard for rural life and open countryside, and a general absence of transparency in the development process. These concerns are reinforced by criticism of the poor quality of information provided to residents, the sometimes-unfriendly behaviour of the developer's representatives, and an apparent lack of due diligence regarding key issues such as site selection, survey accuracy, safety risks and environmental impacts.

Together, these factors have fuelled growing cynicism about the role of venture capital and private profit, along with unease at the willingness of large local landowners to lease their land for industrial energy use. Many respondents also expressed frustration that the government's accelerated approach to achieving Net Zero appears to have sidelined more careful consultation on how to balance land, energy and community priorities. Across the dataset, there is a consistent undercurrent of scepticism toward the claimed benefits of the Kingsway Solar project. Respondents repeatedly questioned the transparency, professionalism and integrity of the project's promoters, describing the process as rushed, poorly communicated and insufficiently scrutinised, all of which have contributed to increasingly high levels of mistrust and opposition.

Overall, the survey findings show that while residents strongly support renewable energy and the aims of the green transition, they regard the Kingsway Solar project as the wrong way to achieve these goals.

Box 1: What this community survey tells us

- There is overwhelming community opposition to the Kingsway Solar Project, both in scale and design.
- Residents are not opposed to renewable energy, but they want it delivered in a way that is local, fair, and environmentally responsible.
- The project has created deep mistrust due to poor consultation, communication failures, and perceptions of "greenwashing."
- People value the countryside for wellbeing, farming, and wildlife, and see its loss as too high a price for this development.

- There is strong demand for alternative solutions, such as rooftop solar, smaller-scale projects, and community-owned schemes.

Methodology

The survey was conducted using a standard questionnaire format that combined nine multiple-choice (tick-box) questions with six open-ended (text) sections. These explored residents' levels of support or opposition to the Kingsway proposal and included sections on views of the green transition, connections to landscape and nature, impacts on wellbeing and lifestyle, and current and future hopes and concerns for the area. Significant additional information on topics not covered by the closed questions was derived from the open sections, which invited respondents to elaborate on or expand their views in short written answers. An unusually high proportion of participants (81%) provided written comments across the five open sections, generating nearly 1,000 responses (972 in total), many of which introduced new themes not included in the structured questions.

The survey was available both online and in paper format, and all responses were collected anonymously. Quantitative findings are presented as percentages and numerical counts (each percentage uses the relevant item base), while open-text responses were thematically analysed using AI-assisted methods, with indicative extracts selected to illustrate typical views. The overall dataset and findings are intended to inform the community's response to the Stage Two statutory consultation and to contribute to broader debate about the role of industrial-scale solar facilities in open countryside near rural villages.

Limitations

As participation was voluntary, the survey results may be subject to self-selection bias, with those holding stronger views potentially more likely to respond. The survey respondent pool was specific to villages proximate to the proposed site, so findings may not represent wider regional opinions. Reported percentages refer to the number of respondents in this survey, not the overall population, and should be viewed as indicative of the views of local community residents rather than as statistically representative at a national level.

Section One: Community views of the Kingsway proposal

Section One explores respondents' overall views and feelings towards the proposed Kingsway Solar project and is divided into two parts. Part 1 presents a five-point Likert scale allowing respondents to indicate their level of support or opposition to the scheme; Part 2 provides an open-ended space for respondents to explain their answers to Part 1.

All 211 respondents completed Part 1, and all but two provided answers to Part 2. The length of written responses varied considerably, from brief phrases of a few words to detailed comments (maximum single answer ~368 words; see Supplementary Materials; Section One). In total, these answers generated ~13,280 words of qualitative data, making it the largest single dataset within the survey.

The findings from both parts of this section demonstrate clear and deeply held opposition to the Kingsway Solar project. Nearly all respondents (92.9%) expressed some degree of opposition, while fewer than one in ten expressed any level of support or neutrality towards the proposed scheme. Among those opposed, the vast majority (86.3%) stated that they were ‘strongly opposed’ (Figure 1).

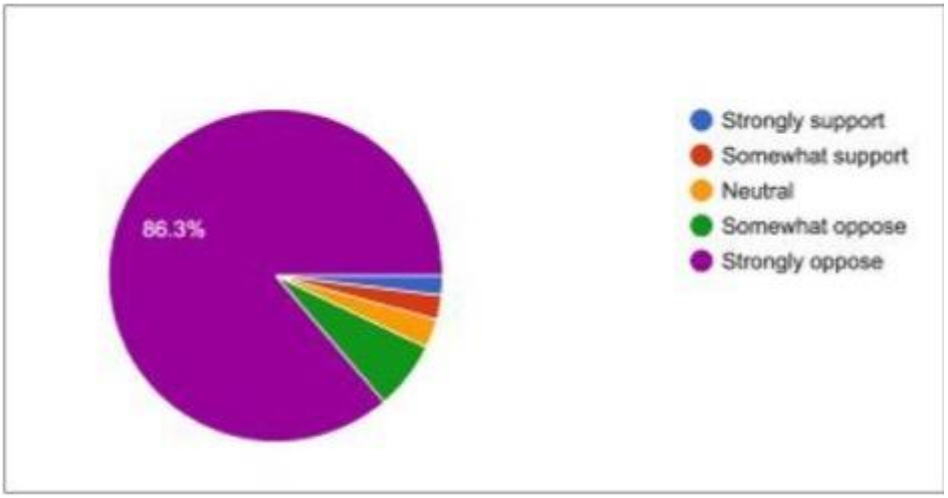

Figure 1: How do you feel about the proposed Kingsway Solar farm? (n=211)

Respondents’ reasons for opposing the Kingsway proposal are multiple and overlapping. The scale of the proposed project and its perceived industrialisation of the countryside form one of the major themes in the dataset, mentioned 218 times in written responses. Many respondents emphasised the perceived destructive impact of a development of this scale on the open countryside, a landscape regarded as central to the character, identity and wellbeing of rural village life.

> *While I support the ambition of net zero, this proposal is totally out of scale with the location and would destroy the important amenity value of this bit of countryside. Too big and wrong place!*
>
> *Shouldn’t be happening in the countryside, put them on roofs of factories/car parks / homes. Will be out of date in a matter of months, technology moves quickly and these will scar the countryside for life.*
>
> *I oppose Kingsway Solar in particular because I think this is the most beautiful area of Cambridgeshire and cannot conceive of why anyone would think it suitable or want to destroy it for an industrial site. It should be preserved and celebrated, not seen as a dispensable resource.*

More than 150 similar comments point to what respondents see as the destructive and irreversible consequences of the proposed Kingsway Solar project for local villages and their surrounding landscape.

Way, way too big. It will ruin a beautiful rural village.

This will destroy the countryside and the lives of the people living there.

Massive, unchecked industrialization of residential areas around our villages.

This development will destroy 3500 acres of farmland, recreational amenity and flora and fauna habitat. The location of such facilities should be on brownfield sites, factory and warehouse roofs etc. where the energy is needed, not in rural agricultural areas.

Concerns about land use were widespread throughout the database, with 67 references in this section alone and 660 mentions across the survey as a whole. Among these, 48 respondents expressed particular concern about the loss of agricultural land in an area renowned for its soil fertility, especially at a time of increasing food security risks.

As one respondent summarised:

The land is already under threat from housing, road and rail expansion. Solar panel installations on the scale proposed will take even more land away from agriculture. This in turn will compromise the UK's food security and mean an increase in food miles for imported food supplies. Taking land out of food production for the life span of the solar panel installation will also have detrimental effects on the soil. We will not only lose the farms but also the skills needed to run them and the support industries that supply them.

More than half of the 209 written responses in Section One raised concerns about the loss of agricultural land – a loss many respondents perceived as irreversible.

A totally unjustified and permanent loss of BMV farmland, potentially affecting future food security.

Against using agricultural farming land which will likely be compulsory purchased in future turning it into industrial land permanently.

I strongly oppose the industrialisation of our countryside, the loss of land for wildlife, and very importantly, the loss of valuable, quality arable land.

I do not support building solar farms on productive farmland. As a country, we import approximately 40% of our food. At a time of increased geopolitical insecurity, we should not be reducing our capacity to feed ourselves.

Ruination and industrialisation of agricultural land will not be beneficial to society or the environment.

We are strongly opposed to the Kingsway Solar Panel project as this will destroy highly productive wheat producing fields that will be covered with glass solar panels. It is a criminal act to cover food producing fields with solar panels.

Around one-third of responses (approximately 31%) foregrounded potential harm to wildlife and biodiversity -- again frequently emphasising the irreversibility of such impacts.

I do not support the destruction of the natural environment and effects on wildlife that these installations will inevitably cause.

Many habitats will be ruined forever, and biodiversity will be damaged with no hope of repair.

The mitigating measures suggested by the developers are laughable in terms of wildlife protection.

Despite contrary views, biodiversity will suffer, it is simple ecology

It will have a devastating effect on local wildlife.

It turns our rural community into an industrial site [and] destroys habitat of our already threatened wildlife which is vital to the long term survival of humanity.

The scale is excessive and will massively impact biodiversity in the area.

A similar proportion of respondents (approximately 28%) cited negative impacts on landscape character and visual amenity as significant concerns.

This is in the wrong place, too close to villages and will adversely affect the character of the landscape.

Loss of an ancient and treasured open landscape, where any attempts at screening would be completely inadequate.

While I support the ambition of net zero this proposal is totally out of scale with the location and would destroy the important amenity value of this bit of countryside. Too big and wrong place!

Our small rural village will become a bleak industrialised area. Stop desecrating our countryside. It's nothing short of vandalism.

The visual effect over the environment will be devastating and as West Wratting is a high location no mitigation will be possible.

It will totally destroy our outlook on lovely fields, footpaths and natural habitats for wildlife of all varieties.

Approximately a quarter of respondents (23%) expressed concern about the encirclement of villages and the proximity of the scheme to homes.

> *To engulf villages with high 2.5m fences with "Danger of Death" signs protecting the solar factory within a stone's throw of residents' front doors is unacceptable. Encircling several villages will ruin the landscape and make them depressing places to live in. Anywhere that is currently used by local people for walking will be covered in panels.*

Several respondents also raised concerns about wellbeing and mental health in Section One (see also Section Four below).

> *We moved to the countryside to live in the countryside. The proposed development encircles our whole village. We would be living in a solar farm. We have children with autism and mental health needs, and the green space is what gives them a good quality of life. We will have to move if this goes ahead.*

> *I regularly walk the local footpaths for my physical & mental health & I dread the effect that looking out over a sea of huge solar panels, fencing, batteries and keep out signs will have on me and others.*

Safety concerns were frequently raised in the open-text responses, with a total of 41 mentions of battery storage risks, 30 references to fire hazards, 9 to flooding, and 14 to potential contamination of chalk aquifers and groundwater. While some respondents raised more than one of these issues, together these comments reflect widespread concern about the safety and environmental risks associated with large-scale solar and battery installations in rural settings.

> *The batteries that would be used for storage can be dangerous, there have been instances of these catching fire & the only solution to this seems to be dousing them with water until the fire expends itself, flushing chemicals from the batteries into the chalk aquifers which provide our drinking water!*

> *The proposed lithium-ion battery storage system poses a further danger. If such batteries catch fire, they can release toxic chemicals into the air and groundwater, contaminating the chalk aquifers on which our villages depend. Cambridgeshire Fire & Rescue have already raised concerns about the hazards of such facilities.*

> *Battery storage farms may be labelled as part of the green transition, but their real-world impact on rural communities tells a very different story.*

Practical disruptions that concerned residents included construction traffic (18 mentions) and heavy vehicle movements on unsuitable rural roads (16 mentions), reflecting widespread anxiety about the capacity of local infrastructure to cope with large-scale construction activity.

I'm not entirely opposed to progress in our world but our little village hasn't no way got the road network to cope with the added traffic this development will for sure need for its construction. I'm a HGV driver myself and have been involved in delivering the products required for construction of these solar farms and I've seen firsthand trucks hitting trees, sinking in verges and numerous damage to hedges and signposts. The construction of this farm, if it goes ahead, will destroy the beauty of our village by the delivering of all the equipment required for this. It won't just be a couple of trucks. It will be hundreds ranging from 45ft low-loaders with plant equipment to 45ft curtain-siders delivering the panels. They will try and get local farms to take delivery of these goods and take them to site on smaller vehicles, but the increase of traffic will destroy the village roads and verges take it from me, the peaceful lifestyle we have will be gone for many years to come.

Finally, a strong and recurring theme is poor communication from the developer and an apparent lack of understanding about the importance of open countryside to rural life.

My mental health has been severely impacted by Kingsway. The initial communications and interactions were handled with a staggering lack of empathy, understanding or tact. The developer's view is clearly the government will sign this off and the community is an inconvenience to be paid superficial and fake regard to as they proceed regardless. They claim to be a Plan B organisation and thus are supposedly committed to working with communities impacted by their work. As we have seen this is lip service only, e.g. submitting the scoping doc for review over Xmas, asking that parish councils are excluded from discussions and bullying of Weston Colville residents for land access.

The Kingsway team has been very poor in terms of communication and community connection. They also seem to have absolutely no idea why access to open countryside is important to people or for that matter what the concept of 'open countryside' actually means.

The communication with the community has been extremely poor.

The poor communication, lack of transparency and arrogant approach of the developers both at the meeting held before Christmas in the Weston Colville reading room and in their subsequent letters and actions is very worrying. I do not trust that the developers are interested in the local community or have any respect for us. On evidence to date, I think they will pursue their own goals, doing the minimum for the community. I also think the whole development and planning process is very worrying. The process here is at odds with the government's claim to want to give more say and return more power to local people, and it is completely undemocratic that one government minister can override local government recommendations and potentially his own planning department.

In summary, an overwhelming >90% of respondents opposed the Kingsway Solar proposal for a variety of reasons. Many cited multiple and overlapping concerns including the loss of valuable farmland and open countryside; safety hazards including fire, flooding and water contamination; proximity to villages; increased traffic and above all the inappropriate scale of

the project. On top of these concerns, respondents objected to the poor communication from the developer and inappropriate behaviour towards residents. These concerns were exacerbated by disappointment at the absence of a clear government strategy for land use and renewable energy planning.

Section Two: Community Views of the Green Transition

Like Section One, this section is divided into two parts. The first explores respondents' understandings of the term *green transition,* while the second invites suggestions for how the local community could contribute to sustainability and clean energy initiatives.

In contrast to their overwhelmingly negative views of the proposed Kingsway Solar project, respondents' views of the green transition were generally positive. Most respondents supported the principle of moving towards sustainability, although there was disagreement about which 'green' alternatives were most appropriate, either for the country or the region.

When asked what the term *green transition* meant to them (n=193), participants expressed a range of perspectives. The largest group, around 41%, described it primarily as a shift away from fossil fuels toward renewable energy sources and the achievement of Net Zero targets. A further 22% interpreted the green transition more broadly as a commitment to sustainable living, mentioning recycling, waste reduction, environmental protection and lifestyle change. A smaller proportion, approximately 7%, emphasised the need for a balanced and equitable transition that safeguards farmland, food security, and the character of rural communities alongside renewable energy development.

As one respondent put it:

> *To me, 'green transition' should mean finding ways to reduce environmental harm without destroying the things we need most — our farmland, water, wildlife, and heritage. Covering prime arable fields with solar panels is the opposite of green.*

Others reflected the tension between principle and practice:

> *I am torn between providing renewable energy and the effect on the local environment.*

> *We need more power, they include batteries, it's better than large housing estates.*

A small minority, about 2%, rejected the need for decarbonisation altogether, while around 4% expressed mistrust of the concept, viewing it as greenwashing or a profit-driven exercise.

> *I worked for an energy company. Please do not dress this up as transitioning to green energy.*

Some respondents argued that large solar farms on productive farmland undermine the goals of the green transition, favouring rooftop and brownfield developments instead.

> *Solar energy has its place, but that place is not on our productive farmland. It should be installed on the roofs of new housing developments, over railway lines, and in car parks — not in the heart of our countryside. This project will be a visual monstrosity, blighting the landscape and destroying the character of our rural community. This isn't green energy — it's greenwashing at the expense of local people and the environment.*

> *I think solar energy is useful as a 'top-up' means of generating energy, but not as a primary method of generating power; the areas of land required for this are simply too large and its utility is limited during the restricted daylight hours of northern European winters, when it's actually needed most.*

Concerns about fairness were also raised by a small group (around 2%), who noted that rural communities bear a disproportionate share of large-scale energy projects while urban areas remain underused.

> *Rooftops and industrial land would be much better but the government is doing nothing to encourage that.*

> *If all suitable rooftops were used for solar PV the need for huge industrial scale solar parks that destroy good agricultural land and countryside amenities could be eliminated.*

> *This is the wrong solution to meeting our sustainability targets. Why trash a landscape and community in the name of clean energy? Why weaken our ability to produce food and energy by outsourcing this project to unknown investors to build on prime farmland? It just doesn't make sense.*

Overall, the findings reveal broad support for sustainability and decarbonisation in principle, coupled with scepticism about how these goals are being implemented. Respondents tend to favour practical, locally appropriate solutions such as rooftop solar, home efficiency measures, and biodiversity protection, rather than industrial-scale solar farms on farmland or open countryside.

Respondents' views on how the local community could contribute to the green transition show that more than half (56.7%) would like to see rooftop and small-scale solar on homes, barns, warehouses, car parks and new-builds instead of farmland or open countryside. A third (33.3%) favour community-owned renewables over privately operated facilities, while 30% emphasise the need for improved home energy efficiency through measures such as insulation and heat pumps. Around a quarter mention transport improvements (25.3%), recycling and waste reduction (20%), or boosting local food and biodiversity (18.7%). Notably, one in five (21.3%) explicitly frame their objection to large solar farms in terms of the failure of such schemes to deliver genuine sustainability by protecting food production, biodiversity and rural landscapes.

In summary, residents' responses to questions about the green transition demonstrate that overall strong support is crosscut by concerns about which measures are being used, and how, and how 'green' initiatives are being implemented – as well as by whom. While most respondents support renewable energy in principle, the majority prefer practical,

community-based solutions, while consistently rejecting industrial-scale solar farms as the wrong approach for achieving a truly sustainable future.

Sections Three and Four: Community Connections to Nature and the Land and their Importance to Wellbeing

A significant finding of the survey is that all respondents (100%) feel a connection to the local landscape and its agricultural heritage, with more than four in five (80.5%) describing this connection as *very strong* and the remaining 19% as *moderate*. One respondent (0.5%) described their connections to local landscapes and agriculture as *minimal* and none were *uncertain* (Figure 2).

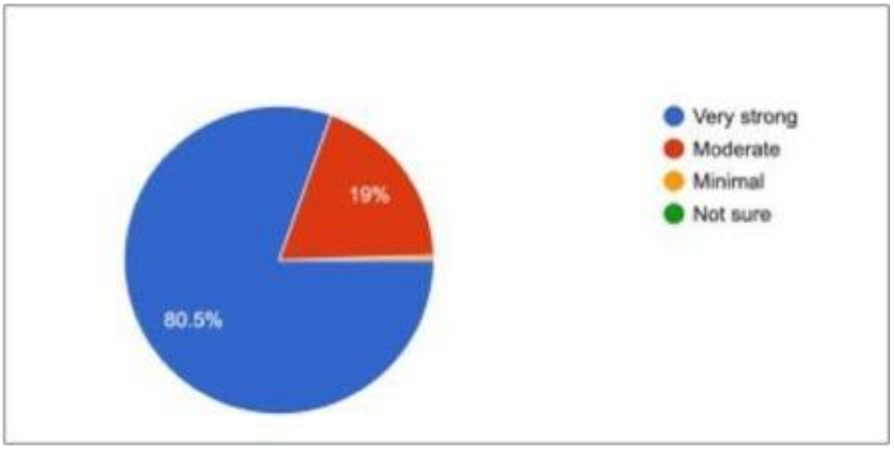

Figure 2: How would you describe your connection to the local landscape and its agricultural heritage (n=210)

Even more striking are the responses to Question 4 on wellbeing where 89.9% stated that the proposed Kingsway Solar project would affect their wellbeing negatively. Positive responses were extremely rare (just 2 of 207 responses, <1%), reinforcing a consistent general pattern of strong emotional attachment to the land paired with strong opposition to the Kingsway proposal.

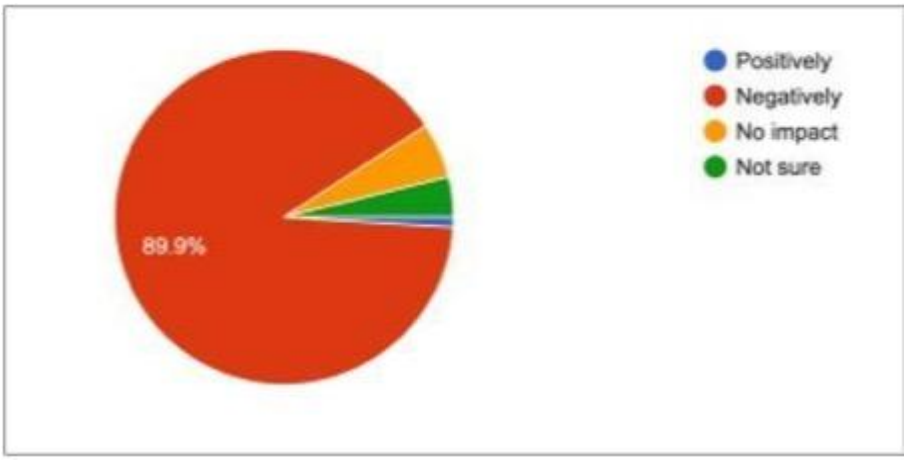

Figure 3: How do you think the solar farm might affect your personal wellbeing (n=207)

In elaborating on their answers, respondents provided more than 2,100 words of comment linking local landscapes, rural activities and nature to both personal and community wellbeing.

> *Human well-being relies on recognising the deep association that people have with the countryside whether a naturalist, farmer or rambler…. Carpeting the unique rolling hills of South Cambridgeshire with millions of solar panels and associated hardware would result in an ugly soul destroying industrial landscape. Utterly devastating.*

Others drew on their personal relationships to nature and the landscape:

> *I enjoy walking through the fields around Balsham and feel this large venture will spoil that pleasure. I don't mind smaller projects such as one or two fields of panels or maybe an array of wind turbines, but this is just too big.*

> *I have always believed that huge solar works should be carried out above carparks and huge industrial buildings rather than using arable land. Arable land is for farming and crops. It is also for the wellbeing of the creatures that have always lived there.*

To explore these connections further, Section Four applies *the Five Steps to Wellbeing* model developed by the New Economics Foundation and adopted by the NHS (nhs.uk/mental-health/self-help/guides-tools-and-activities/five-steps-to-mental-wellbeing), a well-established framework for understanding how environments affect mental health and wellbeing.

Using this approach, the survey results show that most respondents value open countryside, nature and rural landscapes as essential to all five of the steps for both personal and community health.

Across these responses, clear patterns emerge. Under **Connecting with others**, 181 of 210 respondents (86.2%) expressed concern that reduced access to rural landscapes would harm both personal wellbeing and the cohesion of the wider community. For **Being Active**, 203 of 210 respondents (96.7%) agreed with the statement “I enjoy walking and spending time in nature,” while 190 of 210 respondents (90.5%) highlighted the importance of open green spaces to physical health. Under **Taking Notice**, nearly all respondents (203 of 209; 97.1%) agreed that they value natural views and peaceful surroundings, and 189 of 209 (90.4%) said that being in nature helps them relax and reflect. In relation to **Keep Learning**, 167 of 199 respondents (83.9%) valued opportunities to learn from nature, while under **Giving**, 140 of 189 respondents (74.1%) wished to be more involved in building a greener, more sustainable future through personal or collective action.

Respondents’ written comments confirm the importance of these connections, in personal and emotional terms that offer more depth of insight into how they feel about the local land:

> *We bought our house because of the fields around us, loving the views. Since we moved, the countryside has helped my wellbeing and mental health. I love seeing all the wildlife when walking. I am really worried about what is going to be put on the land around our home. I am worried about the wildlife, the health implications for us, and the noise.*
>
> *I moved here for peace and tranquillity. To be at one with nature around me. And enjoy what this countryside had to offer little did I know it would be a huge solar farm.*
>
> *We moved to Balsham 3 years ago. We love the outdoors and Balsham and the surrounding area provided all the essentials. As keen cyclists we have enjoyed exploring the quiet lanes and surrounding villages. I love to run, and the surrounding fields, footpaths and woods offer quiet countryside for trails.*
>
> *The impact it is already having on my physical & mental health is massive. I have rheumatoid arthritis and stress brings on excruciating pain lasting for days, weeks sometimes months. How I manage symptoms is by walking the footpaths around the village and being in nature. Every time there’s something happening with the solar farm I’ve experienced a flare up & ended up in horrible medications & being physically unwell, leading to bouts of depression*

In summary, ~90% of respondents in Sections Three and Four link their wellbeing to continued access to the countryside and fear that the proposed Kingsway project would undermine the foundations of community life, including activity, reflection, learning and contribution. The strength of these feelings is reflected in the depth and detail of commentary provided, underscoring the central role of rural landscapes in both individual and community wellbeing.

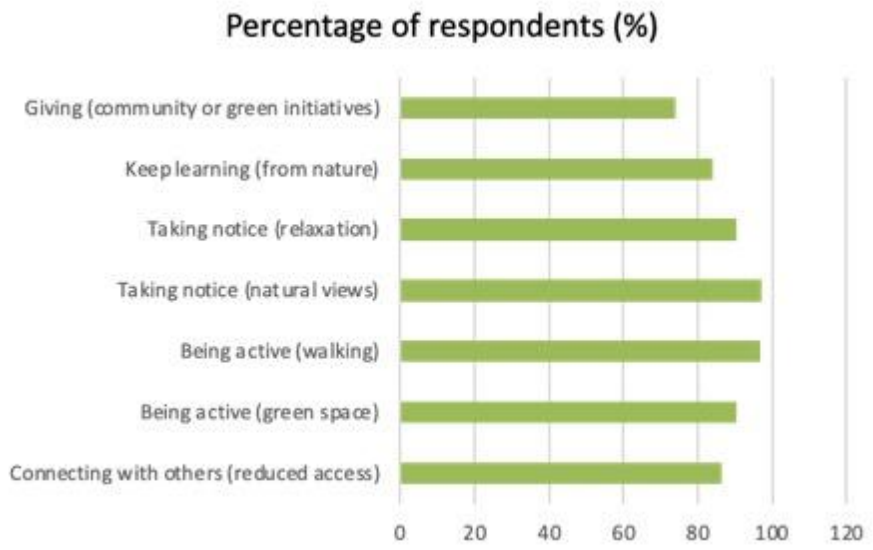

Figure 4: Importance of the countryside according to the Five Steps to Wellbeing (n=209)
Nearly all respondents link access to the countryside with key aspects of wellbeing, especially *Being Active* (walking, 96.7%) and *Taking Notice* (views 97.1%). Note: per-item n varies; percentages use each item's n.

Section Five: Main hopes and concerns about the Kingsway proposal

Section Five focuses specifically on residents' main concerns about the proposed Kingsway project, offering a chance to summarise their views or add any additional points. It is divided into two parts: a tick box multiple choice question in Part 1 and an open-ended question in Part 2. All 211 respondents completed Part 1, which produced a clear concentration of concerns around four dominant issues: visual impact, wildlife and nature, loss of farmland and construction disturbance, as shown in Table 1.

The very high percentage of respondents (91.9%) highlighting the negative impact on local landscapes in Part 1 of this section reinforces one of the survey's strongest findings, namely the repeated emphasis on the intensity of residents' connections to the distinctive rural character of the area. This sense of deeply treasured 'rurality' extends to concerns about the loss of productive farmland and wildlife habitats. Fears about construction traffic and noise are also commonly associated with the loss of 'peace' and 'tranquillity'.

The open-ended text responses (87 in total) in Part 2 provide over 3,700 words of short answer 'elaboration' and this section of the survey, offering a chance for final comments, provides many of the most elaborate and powerfully articulated short answers from respondents. Notably, over half of the respondents explicitly criticised Kingsway's association with venture capital, private profit, and the government's 'fast-track' approach to achieving Net Zero in this section. Around a quarter expressed frustration at poor communication and lack of transparency from the Kingsway team.

The presentations given by Kingsway in West Wratting have been vague and inconsistent. The initial plans were for two small areas away from the village. Then they extended plans to much larger areas surrounding West Wratting and impacting residential areas of West Wratting.

This is just a money-making scheme that rewards landowners and corporate financiers. They don't care about the community or the countryside.

People move to the country for a way of life. The countryside shouldn't be unnecessarily destroyed. The quality of thousands of people's lives and mental wellbeing will be shattered because of the decisions on incompetent people. In any other profession/ circumstance these proposals would be ridiculed as the most logical location.

I believe that construction and maintenance would be carried out by contractors and private companies that do not care for or about local people or the landscape

The Kingsway team has been very poor in terms of communication and community connection. They also seem to have absolutely no idea why access to open countryside is important to people or for that matter what the concept of 'open countryside' actually means.

I believe that the companies behind these developments are only interested in the profits that can be earned without any concern for the damage to local communities, the environment and our fragile agricultural land.

Due to the wide range of comments, responses were grouped into 14 main themes using AI (see Table 3). The table below summarises their approximate share within the Section Six dataset, with representative quotes and commonly suggested mitigations.

Concern theme	~Share *	Illustrative quotes (from responses)	Typical asks/mitigations
Visual impact / industrialisation	95–98 %	"enormous blot on the landscape"; "surrounded by panels"; "rare upland rural landscape industrialised"	Remove Parcel C; reduce scale; set wide buffers; plant screening; keep panels out of key vistas
Wildlife & biodiversity	90–95 %	"hares, deer, skylarks… seriously impacted"; "wildlife driven from natural habitat"	Protect/expand wildlife corridors; no herbicides; habitat creation with monitored net-gain (independent audits)

Loss of productive farmland / food security	90–95 %	“don’t cover wheat fields with glass”; “we need our own food”	Prioritise rooftops, car parks, brownfield; exclude Best & Most Versatile land; agrivoltaics only if proven
Construction traffic & noise	80–85 %	“narrow, poorly maintained roads”; “years of HGVs and concrete”	Defined HGV routes/timing; cap daily movements; use A-road access; road repairs; construction time limits
Poor communication / transparency	70–75 %	“vague and inconsistent”; “box-ticking”; “underhand tactics”	Clear, consistent plans; full layout (panels/BESS/roads); publish studies; genuine co-design; independent facilitation
BESS safety & aquifer contamination	20–25 %	“fire risk… chemicals into chalk aquifers”; “noise hum”	Independent QRA; locate BESS away from aquifer/homes; secondary containment; real-time monitoring; emergency plans
Heritage & historic landscape	10–15 %	“three ancient trackways… moated houses”; “precious historical landscape”	Heritage exclusion zones; visual/setting protections; archaeologist-led surveys; remove/relocate affected parcels
Property value / marketability	10–15 %	“lose value”; “harder to sell”	Generous community benefits; proximity buffers; design to avoid overlooking; property blight support schemes
Rights of way / access	10–15 %	“loss of footpaths”; “bridleways disturbed”	Safeguard/upgrade PROW; no net loss; green corridors; setbacks from paths; wayfinding and surfacing

Flood risk & drainage	5–10%	“increased flooding”	Catchment-wide drainage plan; permeable design; no-build flood zones; independent hydrology review
Privacy/CCTV & security feel	5–10%	“CCTV and compromised privacy”	Minimise mast heights; inward-facing cameras; vegetative screening; security by design
Geopolitics & supply chain	5–10%	“Chinese products… cyber kill switches”; “target for thieves”	Transparent sourcing; cybersecurity certification; anti-theft design; local content where possible
Health & wellbeing	10–15 %	“stress & RA flares”; “mental health impacts”	Health impact assessment; noise limits; visual buffers; resident support during construction
Pylons vs undergroundin g	5–10%	“pylons blight”; “underground cabling please”	Commit to underground grid connections near communities; minimise corridor width

Table 3: Residents’ responses grouped according to the 14 main concern themes derived from AI assisted coding. Many responses combine themes, and percentages thus indicate the proportion of all 211 respondents referring to each. Indicative quotes have been edited for brevity.

Across all themes, respondents consistently called for removing or major scaling back of the scheme (particularly Land Area C); implementing wide buffers and screening; safeguarding wildlife corridors and public rights of way; providing clearer (more transparent) plans and assessing these via more independent oversight. Many comments also urged prioritising rooftop or brownfield solar; enforcing strict construction controls; ensuring robust BESS safety measures, and providing underground grid cabling near communities.

> *Too big. Impossible to mitigate in such a large area. It will destroy our countryside, change biodiversity, reduce our growing capacity, and we will live here with fire risk from substations.*
>
> *Consideration must be made for the quality of life of people who chose to live in the south Cambridgeshire countryside and future food production.*
>
> *I also worry about who eventually benefits from such installations. Not the community, that is for sure. You ruin our countryside, remove productive farming,*

destroy wildlife habitats, and make a hefty profit that likely ends up in the hands of large corporations.

Notably, concerns about property values, often seen as a hallmark of “NIMBY” opposition, were among the least mentioned concerns, ranking second from last. This finding reinforces the overall pattern in the data strongly indicating that community opposition to the proposed Kingsway project is primarily rooted in environmental, community and wellbeing concerns rather than personal financial interests.

Section Six: Hopes for the future

The final section of the survey captured respondents’ ‘hopes or concerns’ about the future of the Kingsway Solar proposal, inviting them to look ahead and share their views through open-ended responses. All but 17 participants took up this invitation, contributing more than 3,200 words of detailed commentary. With a 92% response rate, this section demonstrates the exceptionally high level of community engagement evident throughout the survey.

The overwhelming majority of respondents (~70–75% expressed a single, clear hope: that the proposed Kingsway Solar project would be cancelled outright, describing its size, location and design as poorly planned and wholly inappropriate warning of the irreversible loss of valuable farmland, open landscapes and wildlife corridors. Roughly a quarter of respondents said that if the project could not be stopped, it should be significantly reduced in scale.

A smaller group (~5%) expressed conditional support, acknowledging the need for renewable energy, but insisting it be delivered in more appropriate ways, such as rooftop solar and brownfield installations. Only two respondents (<1% of the survey pool) expressed unconditional support for the scheme.

My hope is that the proposed future of the solar farm is reduced in size considerably. Use land that isn't fit for agriculture purposes.

Mainly, I hope it can be stopped. If it does go ahead, my primary concern would be to influence the design to minimise adverse effects on the community and the environment, and to maximise the improvements to the environment which it is within their power to make. Finally, if it does go ahead, we need a benefits package on our terms.

While I don't have the answers to global warming, I feel that reducing consumption of energy rather than increasing energy production may be a better solution.

I HOPE that the government will put in place a land use strategy that prohibits the construction of solar parks on productive farmland. My concern is that we will lose access to the surrounding countryside which we use for recreation, and which benefits our health and mental wellbeing so profoundly. This land will not return to productive farmland after 40 years because the families and traditions will have been lost. The use of huge warehouse roofs, car parks & public buildings must be prioritised.

Some respondents indicated they or others would leave the area if the Kingsway Solar proposal was approved:

> *The villages will die, as there is no reason to stay here*
>
> *I hope someone in parliament sees sense and puts a stop to it. Otherwise, it's just another reason the country is losing the plot and time to think about moving abroad!*
>
> *I visit Weston Colville at least once or twice a week to look after my grandchildren. I was hoping to move into the village and was preparing to make an offer on a house when the news of this proposal broke. All our plans are now put on hold. I am worried for my family. If this proposal goes ahead they will want to leave but will be unlikely to be able to sell their house for some time.*

Beyond immediate objections, many comments reflected deeper anxiety about the lack of consultation, the perceived disregard for rural communities and the wider implications for public trust in the energy transition.

> *The policy makers should collaborate with members of the local communities who will be impacted by the proposal, to create local initiatives.*
>
> *I hope that it will never happen, but am 100% certain that it will be imposed on us as our current government completely ignores the feelings and wellbeing of our rural communities.*
>
> *If the government is really keen to deliver an effective green transition they must prioritise community involvement. They must deliver and communicate a clear, joined up plan for land use and renewables. They must have a regulator who sets clear boundaries around permissible and impermissible energy plant development, and they must prioritise mechanisms to address genuine public concern. Simply running roughshod over all of this in the name of meeting targets is folly. It will set back rather than advance the Green Transition. Kingsway sadly epitomises the worst elements of the target approach to Net Zero.*

Overall, responses in Section Six reaffirm the dominant themes running throughout the survey: widespread opposition to the Kingsway project, deep attachment to the countryside, and concern about how renewable energy policy is being implemented. Among the 195 responses received to the final survey question, averaging over 150 words each, many combined local concerns—such as wildlife loss, flooding or fire risk—with broader fears about governance, stewardship of rural land and intergenerational loss.

In this closing section, respondents often wrote personally and emotionally, describing feelings of grief, fear and 'dread' at the prospect of losing landscapes central to their lives. Their reflections capture both the immediate and long-term dimensions of community anxiety: the near horizon impacts of large-scale infrastructure on daily life, and the deeper uncertainties about nature, food security and the integrity of future environmental governance in the longer term.

Conclusions

Taken together across all six sections, the survey findings reveal unequivocally strong and unified opposition to the proposed Kingsway Solar project, with >90% of respondents opposed and 86.3% strongly opposed. The highest levels of concern centre on the project's unprecedented scale, inappropriate location, severe risks to human health and destructive impact on nature and wildlife. Closely linked concerns include the loss of treasured rural landscapes and ways of life, the irreversible industrialisation of productive farmland, and the erosion of South Cambridgeshire's distinctive quiet, scenic and historic rural character, defined by its open and expansive views, with traditional field patterns and hedgerows. Other major issues include visual intrusion, risks of contamination to the chalk aquifers and River Stour, the encirclement of villages, and battery storage safety. Disruption from construction traffic on narrow rural roads also features prominently, alongside a wider sense of mistrust towards the developers driven by poor communication and lack of transparency.

Respondents' extensive comments, while unified in their opposition, reveal complex rationales that combine strong emotion, personal experience and deep regard for the communal character of village life. Many acknowledged, and a majority support, the importance of renewable energy and national Net Zero targets, but viewed the Kingsway Solar proposal as an inappropriate and destructive approach. For most respondents, the main driving concern was not opposition to renewable energy itself, but a conviction that large-scale industrial energy projects located in rural areas are the wrong way to deliver it. Across the detailed submissions, respondents argued that the permanent loss of farmland (which 48 respondents specifically linked to food security), harm to wildlife (raised in around one-third of all comments) and reduced access to the countryside would far outweigh the potential benefits of such a scheme. Vital though the need for greener energy solutions may be, respondents felt they should be better planned, using more robust criteria and based on reciprocal community participation.

Methodologically, the survey achieved an exceptionally high level of engagement, with all 211 participants completing the main questions and providing nearly 30,000 words of written feedback -- a response rate far exceeding typical local consultation levels.

In sociological terms, the responses highlight a dominant concern that can be summarised as the protection of what is known as 'rurality' (see references below). More than a geographic or spatial concept, rurality encompasses a combination of material, environmental and cultural characteristics, such as traditional buildings and landscapes, tilled fields, livestock pastures, hedgerows, woodlands, bridleways, footpaths and meadows, that together define both the physical environment and the cultural identity of rural communities. Protecting such landscapes has long been recognised in planning and policy, and the survey findings confirm that these values remain central to local identity, wellbeing, and stewardship of place.

The overwhelming perception among respondents is that industrialising the wide, upland landscapes of South Cambridgeshire would mark the end of village life as it has been known for centuries. Even the prospect of such change has already generated significant stress, worry, and adverse effects on mental health.

Yet, in contrast to their opposition to the proposed Kingsway Solar project, residents consistently expressed strong support for the principle of the green transition. More than half favoured rooftop and small-scale solar, about one-third supported community-owned energy projects, and a similar proportion prioritised home energy efficiency. Many also emphasised the importance of better transport, recycling, and biodiversity initiatives. These suggestions demonstrate a willingness to contribute to national energy goals through fairer, more localised and environmentally sensitive approaches that strengthen, rather than diminish the countryside.

At the same time, a recurrent thread in the data is concern about 'greenwashing' — the belief that governments and corporations use the language of sustainability to mask profit-driven or poorly planned initiatives. This perception, reinforced by negative experiences of the Kingsway consultation process (with 76% reporting dissatisfaction), risks undermining public trust in the wider green transition. This pattern is consistent with evidence that community acceptance of large-scale solar hinges less on general support for renewables than on perceptions of procedural fairness, transparency and local inclusion in decision-making.[3,4]

Taken together, the dataset reveals three central and interwoven strands. First is the very high level of opposition to the proposed Kingsway Solar project, based on its vast scale, inappropriate location and damaging effects on the rural countryside. Second is the broad support for renewable energy and the desire to participate in the green transition, including through community-based initiatives. Third, is the frustration and mistrust over the gap between these two positions, in other words, between the ideals of sustainability and the realities of how such projects are planned and implemented.

From the perspective of the local residents who participated in this study, the consensus is clear: the proposed Kingsway Solar project is not the right path forward. However, the enormous volume of detailed responses from survey participants point to many constructive alternatives. In addition, and pointedly, they emphasise that genuine community engagement, smaller-scale and rooftop renewables, and the protection of farmland and biodiversity must become more central to energy planning in both the short and long term if public support for the green transition is to be increased rather than lost. This finding suggests, moreover, that very large industrial developments in rural areas close to residential villages may not only be unpopular and fiercely resisted, but can potentially compromise the objectives they are intended to deliver. A more effective approach suggested by the findings of this research would be to more successfully align green energy generation with local participation, environmental protection and long-term sustainability, demonstrating that there is a better, more balanced – and more popular – way to deliver the green transition.

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Appendix B: BESS Risk

Case study of the Orsted Battery fire

DISCLOSURE OF KEY SAFETY INFORMATION RELATING TO THE ORSTED LIVERPOOL BATTERY ENERGY STORAGE SYSTEM FIRE AND EXPLOSION ON 15th SEPTEMBER, 2020

AUGUST 2024 - FINAL REPORT CONCLUDING MY INVESTIGATION

BY ALAN SMITH, WORLINGTON

EXECUTIVE SUMMARY

As a local resident of West Suffolk, I have taken a keen personal interest in the safety of Lithium-Ion battery storage, particularly since the fire and explosion at the Orsted Battery and Energy Storage System at Carnegie Road, Liverpool in September 2020. The context is regarding a 2,500 acre solar NSIP which was proposed for the immediate area around which I live, spanning West Suffolk and East Cambridgeshire, and included approximately 75 acres of Lithium-Ion battery storage.

This report covers my key findings over the period since September 2020 in relation to the Carnegie Road, Liverpool incident and highlights the significant delays, of almost four years in some cases, in disclosing critical safety information and data into the public domain. The report also reveals a worrying lack of transparency by Merseyside Fire & Rescue Service.

REFERENCES AND ABBRIEVATIONS

BUREAU VERITAS (BV) Advisor to Merseyside Fire and Rescue Service

COBALT ENERGY LIMITED (Cobalt) Cobalt had a central role in delivering the Carnegie Road facility for Orsted, leading the construction management, commissioning management and the Authorising Engineer.

DUNTON ENVIRONMENTAL (Dunton) Advisor to Orsted via Cobalt Energy Limited.

ELECTRIC POWER RESEARCH INSTITUTE (EPRI) This was founded in 1972 in California and is the world's pre-eminent independent, non-profit, energy research and development organisation with offices around the world. EPRI was commissioned by Orsted in November 2020 to provide their fire report.

EMERGENCY RESPONSE PLAN (ERP) This is a document prepared by the owner/developer and shared with a National Fire and Rescue Service.

FIRE INVESTIGATION REPORT (FIR) National Fire and Rescue Service report.

GENERAL REGULATORY CHAMBER (GRC) The First-Tier Tribunal of the GRC is responsible for handling appeals against decisions made by government regulatory bodies – in this case, the ICO.

INFORMATION COMMISSIONER'S OFFICE (ICO) The ICO upholds information rights in the public interest, promoting openness by public bodies and data privacy for individuals.

MERSEYSIDE FIRE AND RESCUE SERVICE (MFRS) The first responder.

ORSTED The owner/developer of the Carnegie Road battery storage facility.

SIGNIFICANT INCIDENT REPORT (SIR) National Fire and Rescue Service report.

CONTENTS

1. BACKGROUND TO THE LIVERPOOL LITHIUM-ION BATTERY AND ENERGY STORAGE SYSTEM

Orsted is a Danish company and a major player in the global field of renewable energy. In late 2018 Orsted completed a small Lithium-Ion battery energy storage system development in Carnegie Road, Liverpool. It consisted of three storage units. It was energised in December 2018 and commissioned in May 2019.

In September 2020 one of the three containers caught fire and exploded. It was the first of its kind in the UK but globally there had been previous such incidents and these have continued throughout the world to the present day. In some incidents there has been loss of life and serious injury to first responders.

Fire and rescue services are usually always the first responders and, in the Liverpool incident, MFRS attended on the night of the fire and explosion.

Sources of wind and solar electrical power need large energy storage, most often provided by Lithium-Ion batteries of unprecedented capacity.

2. DELAYED REPORTS PREVENTING KEY LEARNING POINTS, AND THE REPORTS THAT WERE EVENTUALLY PUBLISHED MISSING KEY INFORMATION

I have lodged a number of complaints against MFRS over the four year period, as many of their responses have been unsatisfactory and lacking in detailed information.

This has meant my having to engage the services of the ICO and the First-Tier Tribunal of the GRC which led to MFRS being forced to disclose key information as a result of Court proceedings.

In using the services of the ICO and GRC, I have been able to obtain documents released by MFRS under the Freedom of Information Act and subsequently the Environmental Information Regulations 2004 which include:

- The SIR dated November 2020 which was released on the orders of Judge Anthony Snelsdon.
- Two reports from Dunton detailing an environmental analysis of the area following the fire.

It should be noted that Judge Snelsdon instructed MFRS to issue the original FIR dated November 2020 but MFRS claimed this document did not exist, despite referencing this in Court documentation.

Furthermore, in a similar vein, I have obtained the following letters from Orsted, also requested under the Environmental Information Regulations 2004:

- A letter which included an ERP for the site at the time of the fire and explosion (MFRS in a period of 4 years had denied that an ERP ever existed); and
- A letter confirming the type of battery used at Carnegie Road in September 2020.

In addition, through my own research, in October 2023 I came across the fire report produced by EPRI California, commissioned by Orsted in November 2020. This report revealed a significant amount of technical information (previously withheld by MFRS and requested by me through the ICO), protocols and details of the battery type. I later confirmed the battery type with Orsted directly, as stated above.

The table below shows, at a glance, the following information:

- the completion date of each report;
- the date of its publication;
- the time delay between these above dates; and
- the time it took overall for these reports to be publicly available after the incident date in September 2020.

The delays highlighted are totally unacceptable in terms of providing the general public with relevant, transparent information in a timely manner and the question remains as to why these documents have been held back from public consumption for almost four years, in some cases.

Report Name	**Date Completed**	**Date of Publication**	**Time Delay to Publication from Completion**	**Total Time From Incident in September 2020**
SIR 1	Nov 2020	Nov 2023	**3 years**	3 years 2 months
SIR 2	Dec 2021	Mar 2022	**3 months**	1 year 6 months
FIR	Feb 2022	Mar 2022	**1 month**	1 year 6 months

EPRI	Oct 2021	Apr 2023	**1 year 6 months**	2 years 7 months
Dunton	Dec 2020	May 2024	**3 years 5 months**	3 years 8 months
ERP	Aug 2020	Mar 2024	**3 years 7 months**	3 years 6 months

Battery Information				
Battery Type	In situ Sep 2020	Jul 2024	**Never before published**	3 years 10 months

3. PRESENCE OF AN ERP

Site-specific ERPs have become the standard for documenting the potential hazards and response protocols for such BESS incidents.

While final ownership of an ERP falls to the project owner/developer, it must include four main ingredients:

- Hazard identification;
- Defined roles and communication plans;
- Emergency response protocols; and
- First responder training and preparedness.

In the case of the Carnegie Road incident, Orsted as the owner/developer have confirmed that in August 2020, one month prior to the incident in September, a site meeting was held which included representatives from Orsted, Cobalt and MFRS. This was to discuss the finalisation of Orsted's ERP.

The ERP was finally made public in March 2024.

4. BATTERY TYPE CONFUSION

4.1 Types of Lithium-Ion Battery Units

BESS installations contain in the main two types of battery units;

- Lithium Iron Phosphate (LFP)
- Nickel Manganese Cobalt (NMC)

In May 2024 TLS Energy International, a global company providing and advising on energy storage solutions, published an article titled "Why LFP batteries are safer than NMC batteries for large-scale energy storage" which compares the safety aspects of each.

It mentions that, when it comes to large-scale energy storage, safety is a critical consideration. LFP batteries are increasingly favoured over NMC due to their superior safety profile. It then goes on to give the key reasons. Please see article link below:

https://www.tls-containers.com/tls-blog/why-lfp-batteries-are-safer-than-nmc-batteries-for-large-scale-energy-storage

4.2 Lack of Clarity and Delayed Confirmation of Battery Type at Carnegie Road

In the period September 2020 to July 2024 there is no written evidence by the parties involved, namely Orsted, MFRS and Cobalt Energy Ltd as to whether LFP or NMC batteries were present in the three containers at the Orsted site.

The only exception is the EPRI report published in April 2023 which states in September 2020 they were NMC, which is considered the more dangerous option.

I have been advised by Orsted in July 2024 that the batteries installed in the container which caught fire and exploded in 2020 at Carnegie Road, Liverpool, as confirmed by their battery provider (LG Chem), was their model - JP3 2P No Fan Module (ACP) (EM048128P6BD). They confirmed that this is an NMC battery cell.

4.3 Evidence of Battery Type Confusion

Furthermore, in September 2023 the Institution of Fire Engineers (IFE) hosted a webinar entitled “BESS and Thermal Runaway: An explanation, the process and key learnings.” The webinar was open to IFE members and the general public.

One of the speakers was a representative from MFRS who advised the participants that the batteries installed at Orsted, Carnegie Road in September 2020 were LFP.

Clearly this was incorrect information and misleading to the participants.

In the MFRS SIR there is an observation which states;

“Final PH readings confirm neutral readings outside of the unit and a high alkaline content within, (PH of 14) consistent with the base metals used in li-ion cells. These metals include cobalt, nickel or manganese ions which are alkaline in nature. It is unconfirmed which metal, if not all, were present within the unit.”

MFRS had a duty of care to request the developer, Orsted, to confirm the type of battery before any reports were completed and published.

The IFE participants were misled at the webinar which gives no comfort to the general public in terms of how well-equipped the fire service is to respond to specific types of BESS fire and/or explosion incidents.

5. ENVIRONMENTAL REPORTS

The MFRS SIR dated November 2020 mentions that on the 15th September 2020 when the fire and explosion occurred, BV were present and gave advice.

Also present were Cobalt representing the developer, Orsted, who in turn engaged Dunton.

For over 40 years BV have assisted the fire services in the UK by advising on chemical hazards, and when necessary, attending incidents to help with the detection, identification and monitoring of these materials.

It has never been confirmed whether or not BV issued a separate fire report or whether their findings are incorporated within the MFRS document.

6. DUNTON ENVIRONMENTAL

Two environmental reports were released to me by MFRS via Cobalt on the direction of the ICO Commissioner.

They are extremely technical. I have therefore engaged the services of a soil analyst expert and the following are comments included;

"*The fact that high levels of lithium and fluoride were measured underneath the container (possibly where they were not washed away) suggests that the fire water would also have high levels of these contaminants—no analysis of fire water in the Dunton reports.*

Any mention of fire water and the contaminates would have come from MFRS via Bureau Veritas who attended on the night of the incident. There is also mention of the fire water in that it contained hydrofluoric acid, a highly toxic chemical."

The fact that the two Dunton reports were issued on the instruction of the Commissioner and not forthcoming initially from MFRS, confirms that the FIR and SIR produced by MFRS were incomplete.

It is critical that full transparency is required in National Fire and Rescue reporting to highlight the danger to human life and the environment of the toxic chemicals released in a BESS fire and explosion.

7. SUMMARY

The MFRS SIR was authored by the Operational Assurance Team. The document was dated December 2021 and published in March 2022. The summary and key learning item No. 4 states the following:

"MFRS operational risk information available for responding crews specific to this site and the hazards associated with BESS was inadequate."

The EPRI report commissioned by Orsted, completed in December 2021 and published in April 2023, goes further than this and states the following:

"Upon arrival at the site on the 15th September 2020, the fire service was unaware what the Carnegie Road BESS facility was. The watch manager initially communicated that a "large refrigeration unit" was on fire. Several minutes later, the watch manager informed crews that the site was a large grid battery system."

"Orsted and MFRS had worked together to develop an emergency response plan (ERP) prior to the fire incident. Unfortunately, the information about the site and proper emergency response action was not disseminated to local fire crews, resulting in lack of preparedness and confusion when the first crews arrived on-site. It was not until the event was escalated within MFRS that a senior officer was able to instruct fire crews on the proper response strategy."

Wording on the MFRS website under National Fire Chief's Council – National Resilience section states the following:

"*MFRS plays a pivotal role in ensuring the UK's preparedness and resilience in the face of emergencies and disasters. It was in 2016 the MFRS assumed the lead authority role for national resilience on behalf of the Home Office*."

It is felt that MRFS, in such an important national role, should lead by example and, as evidenced in this report, MFRS has failed in this respect.

To summarise, the delays in getting these reports into the public domain has prevented key learning points from the Liverpool BESS fire and explosion from being disseminated

externally on a timely basis. The knowledge gained in such investigations is critical to other Lithium-Ion BESS developers, operators and all parties involved in these to prepare adequately and avoid repetition of such incidents and unnecessary loss of life.

It is disappointing that the disclosures discussed in this report needed to be obtained via tribunals rather than in the spirit of openness and transparency which is needed to ensure public safety.

END OF REPORT

Advice from North Yorkshire Fire & Rescue Service

The following text is taken directly from the website of North Yorkshire Fire & Rescue Service (NYFRS) and can be found at https://www.northyorksfire.gov.uk/business-safety/battery-energy-storage-systems/

The developer must ensure the risk of fire is minimised by:

Procuring components and using construction techniques which comply with all relevant legislation.

The inclusion of Automatic Fire Detection systems in the development design.

Including automatic fire suppression systems in the development design. Various types of suppression systems are available, but the Service's preferred system would be a water misting system as fires involving Lithium-ion batteries have the potential for thermal runaway. Other systems would be less effective in preventing re-ignition.

Including redundancy in the design to provide multiple layers of protection.
Designing the development to contain and restrict the spread of fire using fire-resistant materials, and adequate separation between elements of the Battery Energy Storage System (BESS).

Developing an emergency response plan with NYFRS to minimise the impact of an incident during construction, operation and decommissioning of the facility.

Ensuring the BESS is located with due considerations of impact on communities, sites and infrastructure. Prevailing wind directions should be factored into the location of the BESS to minimise the impact of a fire involving lithium-ion batteries due to the toxic fumes produced.

The emergency response plan should include details of the hazards associated with lithium-ion batteries, isolation of electrical sources to enable fire-fighting activities, measures to extinguish or cool batteries involved in fire, management of toxic or flammable gases, minimise the environmental impact of an incident, containment of fire water run-off, handling and responsibility for disposal of damaged batteries, establishment of regular onsite training exercises.

The emergency response plan should be maintained and regularly reviewed by the occupier and any material changes notified to NYFRS.

Environmental impact should include the prevention of ground contamination, water course pollution, and the release of toxic gases.

The BESS facilities should be designed to provide:

- Adequate separation between containers.
- Provide adequate thermal barriers between switch gear and batteries,
- Install adequate ventilation or an air conditioning system to control the temperature. Ventilation is important since batteries will continue to generate flammable gas if they are hot. Also, carbon monoxide will be generated until the batteries are completely cooled through to their core.
- Install a very early warning fire detection system, such as aspirating smoke detection/air sampling.
- Install Carbon Monoxide (CO) detection within the BESS containers.
- Install sprinkler protection within BESS containers. The sprinkler system should be designed to adequately contain and extinguish a fire.
- Ensure that sufficient water is available for manual firefighting. An external fire hydrant should be in close proximity to the BESS containers. − The water supply should be able to provide a minimum of 1,900 l/min for at least 120 minutes (2 hours). Further hydrants should be strategically located across the development. These should be tested and serviced at regular intervals by the operator. If the site is remote from a pressure fed water supply, then an Emergency Water Supply (EWS) meeting the above standard should be incorporated into the design of the site e.g. an open water source and/or tank(s). If above ground EWS tanks are installed, these should include facilities for the FRS to discharge (140/100mm RT outlet) and refill the tank.
- The site design should include a safe access route for fire appliances to manoeuvre within the site (including turning circles). An alternative access point and approach route should be provided and maintained to enable appliances to approach from an up-wind direction.
- As the majority of BESS are remotely monitored, consideration should include the fixing of an Information Box (IB) at the FRS access point. The purpose of the IB is to provide information for first responders e.g., Emergency Response Plan, to include water supplies for firefighting, drainage plans highlighting any Pollution Control Devices (PCDs) / Penstocks etc for the FRS.

NYFRS are aware that large scale BESS is a fairly new technology, and as such risks may or may not be captured in current guidance in pursuance of the Building Regulations (as amended) and the Regulatory Reform (Fire Safety) Order 2005. This will highlight challenges the FRS have when responding to Building Regulations consultations. For this reason, we strongly recommend applying the *National Fire Protection Association (NFPA)*

855 Standard for the Installation of Stationary Energy Storage Systems along with guidance from the NFCC Grid Scale Battery Energy Storage System Planning.

Appendix C: RSPB Survey - KSCA Correspondence with the Authors

KSCA question/topic	Authors' response	KSCA comment
Q1: Based on these larger land areas of large-scale solar farms, do you think your results are directly scalable and would differences in density of panels affect the results?	• This is an interesting question and one we've previously thought quite a lot about. It is hard to comment on what the impacts of larger land areas and differences in densities of the panels may be without direct data on this. In our study, the driving factor leading to higher bird abundance and diversity was the way the solar farm was managed, across a range of sizes (though still smaller than those you highlight). So, assuming features such as hedgerows around the boundary and a diverse mix of vegetation are implemented throughout the site, one could assume this will provide habitat and it is likely that more birds will be present in these solar farms, regardless of size, than those managed intensively without such features. • Furthermore, some of the larger sites we visited are split into sub-parcels. Rather than one large solar farm sprawling across fields, the original field shape and sizes have been maintained with the ditches and/or hedgerows running between some of the land parcels, not only keeping habitat for wildlife but also minimising the visual impact. So, it may not be the overall size that is important, per se, but rather the features (e.g. hedgerows, ditches, diverse vegetation) present.	Larger solar sites that maintain natural features like ditches and hedgerows between sub-parcels of land could also help preserve habitats and minimize visual impact, suggesting that habitat features, rather than size, are most important.
Q2: While not part of this research, but also	• This is unfortunately not something we were able to account for in this	This highlights a gap in the research, with

relevant to the size of the development, have you given any consideration to the disturbance of birds during construction?	research. More widely, there is little research into this. A full BACI study would be needed to assess the impact of construction, and this would take a number of years and would need the cooperation of the solar developers to provide access to the site throughout the construction period.	potential implications for understanding the effects of construction on bird populations and ensuring that mitigation measures are in place.
Q3: We have seen proposals to create skylark plots in adjacent fields during construction, aiming to encourage temporary relocation with the expectation of their return. However, we wonder how far they can be displaced in this way and how other species would be managed in this regard?	• This is not an area of expertise for us, so we cannot comment on specifics. Though, the links below show the effectiveness of Skylark plots particularly when lack of suitable habitat is present on agricultural land: ○ https://www.tandfonline.com/doi/full/10.1080/00063657.2016.1271394 https://www.rspb.org.uk/helping-nature/what-we-do/influence-government-and-business/farming/advice-for-farmers-helping-bird-species/skylark-advice-for-farmers	The research suggests that displacement could have varying impacts on species' specific habitat needs. Further research is needed.
Q4: Another potential difference between your research sites and newer ones is panel design. Kingsway have indicated that their panels will be 2.9 -- 3.5m high. The panels at Burnt House Sidings (your site near Whittlesey) look considerably smaller. Can you say what the panel design was for all your research sites, and whether you would expect differences in design height (shading) and	• Unfortunately, this is not something we measured, though this data may have been useful. We cannot say how changing panel design and size will impact biodiversity without collecting data on this, but we don't believe the impacts would be large, or at least not large enough to outweigh the greater impact of presence (or not) of woody features, and more diverse habitat. The distance between panels would potentially cause a greater impact, but we presume this will always be large enough to get a cleaning/maintenance machine between panels and, therefore, there will always be a strip of vegetation which can be managed with nature in mind.	Based on the above, habitat management likely has a greater influence on biodiversity than panel design.

tilt angle to affect the results?		
Q5: With regard to methodology, we can see that farmland adjacent to the solar farm was chosen as it was convenient to survey, and it could be argued that this is likely to be similar to the original condition of the solar farm sites. Were any baseline controls used to determine whether the bird activity data collected were representative of other farmland in the area that was farther from the solar farm and unaffected by its presence?	• After our surveys we compared the species composition, richness, and abundance of birds on farmland against the wider long term Breeding Bird Survey (BBS) dataset for the region. Our surveys on farmland were comparable to this wider dataset. • We have a larger dataset of bird observations on arable land than included in this research, collected as part of the same project (so using the same methods and timings) and these results are in line with the BBS data. There were no major distinguishable differences in those fields surrounding solar farms versus those not in the vicinity of a solar farm.	The findings showed no significant differences between fields near solar farms and those farther away, suggesting that the data is representative of the wider agricultural landscape around those solar farms, but some caution is needed in applying the results to less intensively farmed landscapes.
Q6: Could you also please provide more details on the differences between mixed-habitat solar versus simple-habitat solar?	• *Mixed habitat solar:* Managed with biodiversity in mind. The site is not grazed and is cut infrequently (if at all), allowing a diverse mix of vegetation and greater sward height, with features such as meadow strips (natural or planted) and tussocks under and around the panels and in open areas. Along the boundary fence there are woody features (hedgerows and trees). • *Simple habitat solar:* Intensively managed. Grazed and cut throughout the year leading to a monoculture of grass on the site, at a very short length. No other habitats present and no woody features around the boundary fence.	The main difference is that mixed-habitat solar is better for supporting wildlife due to its variety of plants and features such as hedgerows and ditches.

Q7: Have comparisons been made with agricultural land using biodynamic farming, regenerative practices, or agroforestry?	• We have not currently done this. The data was collected as part of our research for the wider Centre for Landscape Regeneration project. Here we aim to identify solutions to the biodiversity and climate crisis through land use scenario modelling. As part of this we collected breeding bird data across a range of land uses, including those which are relatively novel, such as agroforestry and solar farms. We are also working with colleagues looking at intensive arable vs regenerative arable for a range of taxa. However, regenerative farming is a broad term with no clearly defined criteria to define whether a farm is regenerative or not, so it becomes more a sliding scale of regenerative practices. • Undoubtedly, we would have surveyed some range of intensities of farming. However, the Fens, where our surveys were carried out, is a largely intensive arable and horticultural dominated region, so our surveys in surrounding farmland would likely have been representative of the area. • Slightly outside our survey area, at RSPB Hope Farm, which employs Nature Friendly Farming practices, a number of the species observed here were also observed in the mixed habitat solar farms (Corn Bunting, Yellowhammer, Linnet).	Surveys in the Fens showed mixed-habitat solar farms support species found at RSPB Hope Farm, suggesting potential for similar biodiversity. However, further research is needed, especially on skylarks and lapwings, which didn't show an increase
Q8: We note that your surveys cover a relatively short period (April to late June). How did you account for migratory birds such as lapwings, fieldfares, redwings,	• For our surveys we used the joint BTO/JNCC/RSPB Breeding Bird Survey (BBS; https://www.bto.org/our-science/projects/breeding-bird-survey). We followed the standard methodology though report results for distance bands 1 and 2, and at the 200m	The surveys focused on breeding birds from April to June. This timeframe does not account for migratory species or overwintering birds, which we know make

and dotterels, outside this timeframe? We are concerned that your research doesn't account for effects on migratory species that overwinter in agricultural landscapes, where fallow fields or diverse crop rotations provide important food sources.	section level rather than the 1km level. We used this methodology because the data we collected needed to be comparable to the wider national BBS dataset, therefore, we were limited in the number of visits and timings. You are correct that we would not have observed overwintering or migrating species and this is undoubtedly an important group where further research is needed.	use of the proposed Kingsway land parcels.
Q9: However, we are surprised to see no data for barn owls, which are relatively common on farmland.	• While our surveys only recorded Barn Owls in the simple habitat solar, they have a wide-ranging foraging area and will certainly be using the surrounding farmland. Unfortunately, this is just a quirk of the survey methods where not all birds within a given area will be recorded if not able to be identified by sight or sound. Furthermore, whilst we did not observe Barn Owls in the other habitats, there were signs of Barn Owl in two of the mixed habitat solar farms and the engineers reported seeing them on a regular basis.	Barn Owls were recorded in simple habitat solar farms, with signs and regular sightings in mixed habitat solar farms.
Q10: Neither lapwings nor skylarks appear to benefit from solar farm development, irrespective of habitats; indeed both seem to suffer (although the numbers for lapwings may be due to the timing of surveys in relation to their migration).	• Yes, both Lapwing and Skylark require large uninterrupted sightlines which solar farms are unable to offer. Our timings would not have been an issue as the BBS survey specifically has two periods to account for late arrivals. Figure 2 in our paper shows we did see both species, but predominantly on arable land.	Lapwings and skylarks need large, uninterrupted sightlines, which solar farms cannot provide. While both species were observed, they were mostly found on arable land, not solar farms. The survey timings were not an issue, as the BBS accounts for late arrivals.

Q11: The conclusions may not be quite so positive when you realise that the higher species abundance for farmland birds is partly due to an increase in rook, wood pigeon and goldfinch, at the expense of lapwing and skylark. In addition, while skylarks have been noted foraging and singing from solar panels, we are not aware of any conclusive evidence of them nesting within active solar farms in the UK. Are you able to provide any further insights?	• Farmland birds had a higher abundance in mixed habitat solar. I understand your point regarding Figure 2, but when scrutinising the detail in Figure 1, you'll notice that, for the majority of farmland birds (dotted line border around plots), that mixed habitat solar is highest (middle grey bar). This is not the case for only Rook, Wood Pigeon and Goldfinch, but also Yellowhammer, Stock Dove, Reed Bunting, Linnet, Greenfinch, and Corn Bunting. Also, in Figure 2B, abundance in mixed habitat solar (>20) was more than twice as high as that in arable (<10). This is not solely attributed to Wood Pigeon and Goldfinch, but also the species above. Rooks were only present on simple habitat solar. • Lapwing and Skylark did seem to prefer arable, which comes as no surprise, due to their preference for long uninterrupted sightlines, which solar farms are unable to offer.	Mixed-habitat solar farms saw higher bird abundance, including species like yellowhammer and linnet. However, lapwings and skylarks preferred arable land due to the need for uninterrupted sightlines, which solar farms lack.
Q12: Would you consider a further study examining a variety of landscapes which could provide greater clarity and validation for the current findings?	• This study was only a short research article. We would very much like to carry out further research, focusing on a wider range of solar farms, throughout the UK rather than just East Anglia, and focus on a greater number of taxa, such as mammals, invertebrates, and plants. However, currently, this is not an option for the researchers involved due to commitments to other work projects. Though should the data/time/funding become available, it is something we could consider. • In terms of validation, our study does reflect the wider literature (the little there is), such as: Golawski et	The findings by Golawski et al. 2025 are specific to small, isolated photovoltaic (PV) systems typical in Poland and Central Europe. There is a need for further research on the impact of larger PV installations on bird populations.

	al., 2025. Increased bird diversity around small-scale solar energy plants in agricultural landscape	

Q13: Do you have any views on what key actions we can take to monitor and help mitigate potential negative effects, perhaps as part of a citizen science project? This effort, of course, should extend beyond birds to include mammals like the brown hare, as well as insects and plant life.	• In terms of monitoring, we would suggest carrying out systematic surveys for the taxa you're interested in, though this may be difficult due to access rights. For birds we'd suggest either BBS methodology, or perhaps a static point count due to access issues. This would allow you to carry out surveys throughout the year, picking up overwintering or migratory species which you have mentioned, from public footpaths/rights of way.
	  ○ https://www.bto.org/our-science/projects/breeding-bird-survey;
	  ○ https://research.fs.usda.gov/treesearch/31461
	• For mammals, it could be done with a similar static point count, noting the number of individuals and species. Consistency in methods is key in enabling you to compare trends across years/monitoring periods. This would mean ensuring the same time per count (typically 10 minutes for point counting birds) and the same number of counts per site and year. Collecting such rich consistent data may reveal trends.
		To monitor and mitigate solar farm impacts, consistent surveys for birds, mammals, insects, and plants using methods like BBS or static point counts are essential. Citizen science can support these efforts by involving local communities in data collection.

Q14: We agree with your advice that solar farms should be kept away from nature-sensitive areas, but we would like to understand your definition of these areas.	• By nature-sensitive areas we mean sites which have designations, such as SSSIs, SPAs, and SACs, but also those which are undesignated and have been deemed ecologically sensitive. • A previous piece of RSPB work produced sensitivity maps for a range of species (based on the distribution of protected areas and the foraging and home ranges of sensitive species) for renewable energy (solar, wind, and bioenergy	The paper on Reconciling Biodiversity suggests that current technologies for renewable energy can have minimal ecological impact, provided they are carefully monitored and sited to enhance biodiversity. Sensitivity maps,

	crops, onshore). The paper and data can be accessed below: ○ https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0150956; ○ https://opendata-rspb.opendata.arcgis.com/datasets/RSPB::solar-energy-opportunity-showing-sensitivity-and-constraints/about	such as those from RSPB, identify areas that should be avoided for renewable energy development, including solar farms, based on the distribution of sensitive species and protected areas. According to the RSPB sensitivity map, Kingsway Solar is located in a medium-sensitivity area.
Q15: Similarly, we would appreciate clarification on your definition of high-grade agricultural land.	● By high-grade farmland we mean the best and most versatile land, i.e. Agricultural Land Classification Grades 1 to 3a.	
Q16: Can you also further elucidate on the 'potential leakage effects' and how this relates to the paper by Don et al, 2024, which does not discuss solar farms as part of climate mitigation?	● 'Leakage effects' in our context refer to the potential relocation of food production if agricultural land is taken out of production. For example, if high-grade agricultural land was turned into solar farms, the reduction in food produced would mean that the food needs to be produced elsewhere instead. This leakage can operate at different scales, e.g. local (displacing it to elsewhere in the surrounding area), national (elsewhere in the UK) or global (elsewhere in the world). Don et al. aren't specially looking at solar farms, but they are discussing the context of leakage. There is also a relevant recent paper by Balmford et al. which talks more about leakage. ○ https://www.science.org/doi/10.1126/science.adv8264	'Leakage effects' refer to food production being displaced when agricultural land is used for solar farms. Although ground-mounted solar farms currently occupy just 0.1% of UK land—projected to rise to only 0.3% if 2050 solar targets are met (compared to 0.6% for golf courses)—an analysis by Solar Q indicates that concentrations in certain regions exceed 1%. This makes it especially

	• As mentioned in the paper, previous modelling at the national scale suggests that the total land required for solar farms under future climate mitigation scenarios is small (link to this paper below). So, the total amount of potential 'leakage' of food production due to solar installations is also likely to be small, especially if care is given to site them away from the highest-grade agricultural land ○ https://www.cell.com/cell-reports-sustainability/fulltext/S2949-7906(24)00195-2	important to avoid high-quality agricultural land in affected areas.
Q17: Looking ahead, with two large-scale solar farms near Cambridge (one approved) and over 15 more at various stages of application and approval across Lincolnshire, Norfolk, Cambridgeshire, and Suffolk, would you be interested in further research to determine whether these results remain consistent on a much larger scale? Given the potential for greater impacts on local ecosystems and nature corridors, we would love to meet and explore opportunities for collaboration.	• As above, we would very much like to carry out further research, focusing on a wider range of solar farms, throughout the UK as well as East Anglia, and focus on a greater number of taxa, such as mammals, invertebrates, and plants. • Currently, this is not an option for the researchers involved due to commitments to other work projects. Though, should the data/time/funding become available, it is something we could consider. • We would be very happy to collaborate on such work, and one potential way which would allow us to do so is to work with others collecting and providing us with the data to analyse.	The researchers are interested in expanding their study to more solar farms and taxa, but current commitments prevent this. They are open to collaboration and suggest partnering with others to collect data for analysis.

Page 20 point A full Battery Safety etc …. Should it say - must not be deferred?