



# SUNNICA ENERGY FARM

EN010106

Volume 8

8.71 Applicant's Response to the Second Written Questions

Planning Act 2008

Infrastructure Planning (Applications: Prescribed Forms and  
Procedure) Regulations 2009



Planning Act 2008

**The Infrastructure Planning  
(Applications: Prescribed Forms and  
Procedure) Regulations 2009**

**Sunnica Energy Farm  
Development Consent Order 202[x]**

**8.71 Applicant's Response to the Second Written Questions**

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# 1 Introduction

- 1.1.1 This report responds to the Examining Authority's (ExA) second written questions, issued on 5 January 2023 [PD-021]. It responds to each of the questions posed to the Applicant. The Applicant has not responded to questions posed to specific Interested Parties but will review those responses once available and may comment on those at Deadline 6.
- 1.1.2 Section 2 of this report is tabularised to include the ExA's questions and response to each question as follows:
- Principle and Nature of the Development (13 questions)
  - Air Quality and Human Health (19 questions)
  - Biodiversity and Nature Conservation (including Habitats Regulations Assessment) (6 questions)
  - Compulsory Acquisition, Temporary Possession and Other Land or Rights Considerations (the ExA has no questions in this round)
  - Cultural Heritage and Historic Environment (1 question)
  - Draft Development Consent Order (dDCO) (the ExA has no questions in this round)
  - Environmental Statement – general matters (the ExA has no questions in this round)
  - Landscape and Visual Effects (4 questions)
  - Noise and Vibration (1 question)
  - Socio-Economics and Land Use (19 questions)
  - Traffic, Transport and Highway Safety (16 questions)
  - Water Resources, Flood Risk and Drainage (1 question)



## 2 Topic 2.0 - Principle and Nature of the Development

ExQ2	Respondent	Question	Applicant's Response
Q2.0.1	The Applicant	<p><b>Community benefit</b></p> <p>Why has the Applicant not designed the proposed development to incorporate benefits to the local community by way of reduced energy costs?</p>	<p>There are three parts to this answer, which are set out in more detail below. In summary the Applicant's response to this question is as follows:</p> <ol style="list-style-type: none"> <li>1) There is no planning policy imperative for the Applicant to do so;</li> <li>2) Due to the nature of the operation of electricity market it is not an easy task for an electricity generator which supplies electricity to the National Grid to offer discounted electricity prices to a limited geographical area; and</li> <li>3) The Applicant is providing a community benefit package but this does not include reduced energy costs.</li> </ol> <p><b><u>[A] No planning policy imperative</u></b></p> <p>The Applicant's analysis of the Scheme's compliance with planning policy is set out in the Planning Statement [APP-261]. Section 5 of the statement explains the legislative and policy context for the Scheme, which includes the national as well as the local policy context. Section 6 of the statement appraises the Scheme against this policy context. It is noted that there is no general planning policy requirement for the Scheme to deliver a community benefit, let alone one which delivers reduced energy costs. In general terms there is no impact arising from the Scheme which justifies mitigation measures being put into place which secures a community benefit of this nature.</p> <p>Section 4.7 of the Planning Statement does set out benefits of the Scheme which will result in community benefits. These include:</p> <ol style="list-style-type: none"> <li>1) The Scheme will contribute towards meeting the urgent national need for secure and affordable low carbon energy infrastructure;</li> <li>2) Deliver a biodiversity net gain of approximately 83% for habitat units, 16% for hedgerow units, and 1% for river units;</li> <li>3) Identification of areas of high archaeological value that will be retained and protected from agricultural activity;</li> <li>4) Incorporation of four permissive paths for increased public access across the area;</li> <li>5) Improvements to soil quality in areas currently used for agriculture which will lie fallow for a period of 40 years;</li> <li>6) Benefits to the local economy including significant employment generation opportunities during construction and the delivery of a Skills, Supply Chain and Employment Plan.</li> </ol>

ExQ2	Respondent	Question	Applicant's Response
			<p>In addition to the above the Applicant is working on a set of measures to be included in a planning agreement. Further details are set out at point [C] below.</p> <p><b><u>[B] Operation of UK power market</u></b></p> <p>The way in which the UK power market operates means that delivering reduced electricity tariffs for the local community when a scheme has been designed to connect into the national grid is difficult.</p> <p>Participants in the UK Power Market are differentiated between generators (the Applicant has a Generation Licence) and suppliers (the Applicant is not licensed to supply electricity to end users). This is a key principle of operation of GB's power market and was introduced in order to drive competition in the GB electricity market post privatisation in order to lower costs for consumers. Direct, or unlicensed supply, from generation assets to end use consumers, is possible but is subject to restrictions both commercial and regulatory in nature which means that electricity generators rarely pursue this model.</p> <p>Some renewables project developers, particularly in the onshore wind sector, advertise that they will offer reduced energy costs to local residents. However, in order to do the same Sunnica would need to have an electricity supply business, which it does not have, and therefore cannot offer this benefit directly.</p> <p>Other project developers in the sector offer shared ownership schemes through different legal mechanisms. These can enable local residents (through shared ownership) to benefit from reduced electricity prices. As a nationally significant infrastructure project, Sunnica is not proposed to incorporate any form of shared ownership and therefore cannot offer this benefit directly.</p> <p>National schemes, which connect to the National Electricity Transmission System, are important because the sun does not shine all the time. When it does not, electricity must be generated by other technologies. Consumers must be connected to a supply system which connects to multiple technologies and geographies in order to keep their electricity supply simple and cost effective when the source of their electricity changes.</p> <p>Further, when the sun is shining, it is unlikely that the profile of consumption required by consumers local to the proposed development will closely match the profile of generation from the proposed development. Local consumption will change half hour by half hour, day by day, and season by season, and may at times be relatively unforecastable. The risks associated with balancing supply and demand can be better managed via the GB electricity market than by individual consumers of generators in isolation. Put simply, the</p>

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			<p>pooling of risk makes the management of risk cheaper for all, because some risks will offset others.</p> <p>From the consumer side, consumers use and buy the power that they need, when they need it and from whom they choose: they flick a switch, the light comes on and their supplier bills them. It is generally most economic for consumers (with notable exceptions called "Private Wire Agreements") to have electricity supplied to them via licensed Electricity Supply Companies which are participants in the UK Power market and buy electricity, which is transmitted and distributed, via the NETS and local Distribution systems, all the way to their properties. Being supplied by one generator may require consumers to be supplied from a shortlist of suppliers, which may therefore restrict consumer choice or ultimately be unpalatable for those local residents the arrangements would be aiming to benefit!</p> <p>In order to navigate around such industry and commercial complexities, consumers and generators involved in any "off-grid" supply arrangement may need to be linked "off-grid". While no detailed work has been completed on this topic, linking consumers directly to generators would require more wires, poles (or trenches) and substations in the surrounding neighbourhood. Aside from what may be a prohibitive cost to install a separate network to facilitate the provision of local electricity to the local community, the environmental harm associated with the required infrastructure may well outweigh the benefits associated with providing energy to local consumers.</p> <p>Finally – it is incredibly difficult to design a cost contribution scheme which is accepted by all local consumers. Local consumers could be located near or far from the development boundary, or they could be high or low volume electricity users. Given the nature of this development, local consumers may have different characteristics from one part of the development to another. Opening a Pandoras Box on discount may harm local community feeling, and ultimately be unsuccessful in delivering the benefit for which it was designed.</p> <p><b><u>[C] Community benefit package</u></b></p> <p>The Applicant recognises that the local community consider that it should receive community benefits, given it would host the Scheme, beyond those identified in [a] above. The Applicant considers that providing reduced electricity costs to the local community is not possible for the reasons set out in [b] above.</p> <p>However, the Applicant is in the process of developing a suite of further community benefits which it hopes will be enshrined in a planning agreement with the local planning</p>

ExQ2	Respondent	Question	Applicant's Response
			<p>authorities. It has provided suggested heads of terms to the local planning authorities for consideration.</p>
<p><b>Q2.0.2</b></p>		<p><b>Temporary development</b> With reference to the D4 submission of Mr Munro [REP4-076] please comment on the "relevant points" in the last column of Appendix D with respect to the treatment of solar energy proposed developments as temporary or permanent in nature.</p>	<p>The Scheme is by definition 'temporary' development since the DCO, if granted, would be a temporary consent requiring the cessation of operation and decommissioning of the Scheme at the end of the specified 40 year operational period. This is in accordance with Paragraph 2.49.9 of draft NPS EN-3, which sets out that "<i>Applicants may apply for consent for a specified period, based on the design life of the panels. Such consent, where granted, is described as temporary because there is a finite period for which it exists, after which the project would cease to have consent...</i>" (emphasis added).</p> <p>A permanent consent would grant approval for an unlimited period of time and would permanently change the use of the land to which the application relates. The Scheme does not do this. On completion of decommissioning the lawful use of the land would revert to the use that was extant before the Scheme commenced. The Scheme, therefore, cannot be considered to be permanent in planning terms.</p> <p>Whilst temporary, the Applicant and the DCO application acknowledge that the Scheme would be in place for a significant period of time – up to 40 years. However, since it is part of the Scheme for which consent is sought, the Scheme must be considered on the basis that it is temporary and reversible. To consider the Scheme as if it was permanent would be to consider a different scheme to that for which development consent is sought.</p> <p>The relevant question is whether and how the temporary nature of the Scheme and the reversibility of impacts should affect the weight given to impacts in the planning balance. The answer to this depends on the type and nature of the impact. Some examples are below.</p> <p><b>Landscape</b></p> <p>In respect of landscape, NPS EN-1 paragraph 5.9.16 and Draft NPS EN-1 paragraph set out that the decision maker should consider "<i>...whether any adverse impact on the landscape will be capable of being reversed in a timescale that the IPC [Secretary of State] considers reasonable.</i>" In considering the two solar DCO applications that have</p>

ExQ2	Respondent	Question	Applicant's Response
			<p>been decided to date, the temporary nature and reversibility of landscape impacts have been taken into account in both cases.</p> <p>At paragraph 4.66, the SoS's decision letter for Little Crow Solar Park (referring to the ExA's recommendation report) states: <i>"The character within the Order Limits would be entirely changed from agriculture to quasiindustrial for the 35 years of the proposed Development's lifetime, but would then be reversed by the decommissioning which is secured through Requirement 4 of the Order [ER 4.11.59]"</i> and at paragraph 4.75 states: <i>"the Secretary of State agrees with these conclusions"</i>. Extracts of the SoS's decision letter referred to in these answers are included in Appendix A.</p> <p>In respect of Cleve Hill Solar Park, the Examining Authority's recommendation report sets out the following at paragraph 6.5.42, under the heading 'Permanence': <i>"In reaching a judgement, NPS EN-1 at 5.9.16 tells us that we should consider whether any adverse impact on the landscape is temporary and capable of being reversed in a reasonable timescale. In this case, we have taken the view that all of the adverse landscape and visual impacts are fully reversible and would be removed on full decommissioning in accordance with the agreed outline Decommissioning and Restoration Plan [APP-206], which is secured through Requirement 17. The timescale for this would be a maximum of 40 years..."</i>. At paragraph 6.6.1, under 'Conclusions' it goes on to stat that: <i>"Taking all relevant representations into account we conclude:.. ...- all of the adverse effects would be reversible on decommissioning"</i>. Extracts of the recommendation report referred to in these answers are included in Appendix A.</p> <p>The Applicant notes that the appeal decisions identified by Appendix D of the D4 submission of Mr Munro [REP4-076] are concerned largely with Green Belt impacts. However, the 'Land at Higher Farm' decision does briefly address the temporary nature of the development in respect of consideration of landscape impacts. At paragraph 26 the Appeal Decision sets out that the reversibility and duration of the development are capable of having an impact on the planning balance, stating: <i>"Limiting the development to a 25 year period would foreshorten these harmful landscape and visual impacts and could have had a bearing in the overall planning balance."</i></p> <p>The above shows that the temporary nature of the Scheme can be taken into account in consideration of landscape impacts in the planning balance. The Applicant submits this is an important matter for the Examining Authority to consider when carrying out the planning balance.</p>



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			<p><b>Heritage</b></p> <p>In respect of heritage impacts, NPS EN-1 paragraph 5.8.12 and Draft NPS EN-1 paragraph 5.9.1 set out that: <i>"In considering the impact of a proposed development on any heritage assets, the IPC [Secretary of State] should take into account the particular nature of the significance of the heritage assets and the value that they hold for this and future generations. This understanding should be used to avoid or minimise conflict between their conservation and any aspect of the proposal."</i></p> <p>The temporary and reversible nature of the Scheme means that impacts on the setting on heritage assets during the lifetime the Scheme would not persist after it is decommissioned. This means that irrespective of impact during the life of the development (which would be observed by the current generation) there would be no conflict between the Scheme and the value of heritage assets for future generations, as referred to by NPS EN-1.</p> <p>The Applicant also notes that heritage assets, by their nature, have existed for a long period of time and will have experienced changes to their setting over their lifetime. The 40-year life of the Scheme may only be a small proportion of a heritage asset's lifetime and, where no physical impact is caused, may be reasonably described as temporary in that context. However, for the avoidance of doubt, the temporary nature and reversibility of the development has not been taken into account in the assessment of the operational phase impacts on heritage assets by Environmental Statement Chapter 7, Cultural Heritage [APP-039], or by the Heritage Harm Assessment set out as Appendix D of the Planning Statement [APP-263]. These documents assess the impact of the Scheme at a single point in time.</p> <p>The appeal decisions identified by Appendix D of the D4 submission of Mr Munro [REP4-076] are concerned largely with Green Belt. However, the 'Land at Higher Farm' decision does address the temporary nature of the development in respect of consideration of heritage impacts. At paragraph 41 it states that <i>"The Heritage Balance. When the above harm to designated and non-designated heritage assets is weighed with the public benefits of the proposal I find this matter is finely balanced. Mindful that the development would be reversible and temporary in nature, the heritage balance just tips in favour of granting planning permission."</i> In this case, the temporary nature and reversibility of the proposed development was determined to be the factor that made the impact of that development acceptable in relation to heritage impact.</p>

ExQ2	Respondent	Question	Applicant's Response
			<p><b>Minerals</b></p> <p>In relation to impact on safeguarded minerals, the temporary nature of the Scheme is relevant since it means that mineral resource would not be sterilised. Paragraph 5.10.9 of NPS EN-1 and paragraph 5.9.11 of Draft NPS EN-1 state that: <i>“Applicants should safeguard any mineral resources on the proposed site as far as possible, taking into account the long-term potential of the land use after any future decommissioning has taken place”</i> (emphasis added). It is noted that the Inspector for the Wauntysswg Farm proposed development identified in Appendix D of the D4 submission of Mr Munro [REP4-076] agrees with this, stating at paragraph 305 of the Inspectors report: <i>“I consider that this temporary effect would not result in the permanent loss of the mineral resource. Consequently, the coal safeguarding area would not be compromised and the development would not prejudice future extraction as required by BGCBC LDP Policies...”</i></p> <p><b>Agricultural land resource</b></p> <p>Regarding agricultural land, the Secretary of State's decision on the Little Crow Solar Park demonstrates that the temporary and reversible nature of the scheme are relevant to consideration of the impact of the Scheme on agricultural land. The SoS's decision letter states at paragraph 4.50 that: <i>“The majority of the agricultural land that would be used is Grade 3b, which does not constitute BMVL, although 36.6ha would be Grade 3a (which is BMVL) [ER 4.10.37]. This would be affected for the 35 year lifetime of the proposed Development and then be returned to agricultural use, and the ExA considered this did not amount to a permanent loss of farmland [ER 4.10.38]... .. The Secretary of State agrees with the ExA's approach to this issue.”</i> Extracts of the SoS's decision letter referred to in these answers are included in Appendix A.</p> <p><b>Conclusion</b></p> <p>The above clearly demonstrates that the Scheme is temporary, and that the temporary and reversible nature can be taken into account in the planning balance and can affect the consideration of impacts of the Scheme in relation to matters including landscape, heritage, minerals and agricultural land.</p> <p><b>Relevance of appeal decisions</b></p>

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			<p>In commenting on the decisions referred to in Appendix D of the D4 submission of Mr Munro [REP4-076], the Applicant notes that all but one of these relate to solar farms that are of local significance. These were Planning Applications under the Town and Country Planning Act 1990 (TCPA 1990) and were required to be determined in accordance with Section 38(6) of the Planning and Compulsory Purchase Act 2004 which states that the determination must be made in accordance with the local development plan unless material considerations indicate otherwise. The one exception to this is Wauntysswg Farm, which is 'Development of National Significance' (DNS), a Welsh regime for energy projects between 10MW and 350MW in capacity. The Wauntysswg Farm development is 30MW in capacity, and therefore much smaller than the Scheme.</p> <p>In contrast with the decisions referred to in Appendix D of the D4 submission of Mr Munro [REP4-076] the Scheme is a Nationally Significant Infrastructure Project (NSIP), meaning that it is of national significance and benefit in terms of its capacity to generate electricity. It is not required to be determined in accordance with the local development plan. The Scheme should be determined pursuant to section 105 of the Planning Act 2008. This means that the Secretary of State must consider matters which are important and relevant to their decision and the Applicant is of the view that whilst the development plan is capable of being important and relevant it will be afforded less weight in the decision making process than the policies in the National Policy Statements. Further information is included in the Planning Statement [APP-261].</p> <p>In addition, the appeal decisions identified by Appendix D of the D4 submission of Mr Munro [REP4-076] also primarily deal with the relevance or otherwise of a time limited consent in relation to impact on the Green Belt. The Scheme is not located in the Green Belt, so this point is of little specific relevance.</p> <p>The table below identifies that the appeal decisions referenced by Appendix D of the D4 submission of Mr Munro [REP4-076] generally conclude that the temporary and reversable nature of a proposed development is capable of being a material consideration but do not afford significant weight to this in the planning balance. In addition, the Applicant notes that other TCPA 1990 appeal decisions have taken account of the temporary and reversible nature of a solar farm in considering impact on the Green Belt. For example, at paragraph 17 and 18, the 16 August 2022 decision for APP/C3430/W/22/3292837, Land West of Wolverhampton West Primary Substation, South Staffordshire Railway Walk, Wolverhampton WV4 4XX states: <i>"National policy advises that developments should be located where impacts are, or can be made, acceptable. I consider that the location of the proposed development, adjacent to an</i></p>

ExQ2	Respondent	Question	Applicant's Response						
			<p><i>existing substation and agricultural buildings, together with the existing and proposed landscaping means that this would be the case here. Additionally, whilst the proposed development would be located at the site for a number of years, it is reversible and capable of being removed from the site.</i></p> <p><i>Therefore, and in my judgement, the environmental benefits of the proposal and the fact that the impacts can be made acceptable, are sufficient to outweigh the harm to the Green Belt. Consequently, the very special circumstances necessary to justify the proposal do exist ..."</i></p> <p>Another appeal decision, APP/R0335/W/22/3294302, Cokeley Mead, Ryehurst Lane, Binfield, Bracknell, RG42 5QZ (12 August 2022), also notes at paragraph 12 that: <i>"Although the proposal would be in place for a considerable period, it remains that the development would be reversible and this could be appropriately conditioned. Planning Practice Guidance (PPG) advises on circumstances where a temporary planning permission may be appropriate ; the proposal does not meet such circumstances. As such, the reversible nature of the development weighs in favour of the scheme, albeit only carries moderate weight."</i></p> <p>The point that the temporary and reversible nature of a scheme is relevant to the planning balance and decision is helpful to consideration of the Scheme. However, the individual decisions about the amount of weight to be afforded to temporary nature and reversibility in the planning balance are considered to be less useful since the decisions set out are for vastly smaller projects and under different consenting regimes. In the case of planning applications under the TCPA 1990, the decision making framework is designed to deal only with the impacts of small scale projects that are of local scale and benefit. As such, the Applicant considers that the determinations made in respect of the weight attributed to temporary nature and reversibility by the appeal decisions identified by Appendix D of the D4 submission of Mr Munro [REP4-076] are of limited, if any, importance and relevance to the Scheme.</p> <table border="1" data-bbox="1048 1209 2056 1361"> <thead> <tr> <th data-bbox="1048 1209 1245 1257">Project</th> <th data-bbox="1245 1209 1570 1361">Mr Munro's summary of 'Relevant Points' in respect of treatment of solar energy proposed developments as</th> <th data-bbox="1570 1209 2056 1361">Applicant's comments</th> </tr> </thead> <tbody> <tr> <td data-bbox="1048 1257 1245 1361"></td> <td data-bbox="1245 1257 1570 1361"></td> <td data-bbox="1570 1257 2056 1361"></td> </tr> </tbody> </table>	Project	Mr Munro's summary of 'Relevant Points' in respect of treatment of solar energy proposed developments as	Applicant's comments			
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ExQ2	Respondent	Question	Applicant's Response		
				<p><b>temporary or permanent in nature</b></p>	<p>In contrast to the Sunnica Scheme, this application was for small scale solar farm under the TCPA 1990.</p> <p>The principle that the temporary nature of the scheme can be given weight is demonstrated by the discussion of impact on the openness and purposes of the Green Belt. Paragraph 29 of the Inspectors' Report states that <i>"This temporary nature is significant; a fact to which the Council gave very little weight. Green Belt policy is fundamentally concerned with the permanence of the Green Belt. The temporary nature of the development would ensure no precedent for permanent development was set."</i></p> <p>At paragraph 40, it goes on to state: <i>"Due to the temporary nature of the proposal, as well as the fact that the structures would not completely cover the site, I consider that the effect on openness and the purpose of including land in the Green Belt would cause moderate harm in totality."</i></p> <p>This decision shows that the temporary and reversible nature of the solar farm was a relevant matter in the planning balance. In this instance the inspector considered the temporary nature and reversibility of the proposed development to be significant and</p>
			<p>REDEHAM HALL, SMALLFIELD, SURREY RH6 9SA</p>	<p>"Proposal for 25 years considered to be significant and only limited weight given to "temporary" nature"</p>	



ExQ2	Respondent	Question	Applicant's Response		
					<p>gave it weight. However, the SoS chose to give it only limited weight.</p> <p>This is in the context of a TCPA application for a small scale solar farm and the particular set of circumstances of that application. The Applicant considered that the SoS's judgement of weight in this specific case if of limited, if any, relevance to the Sunnica DCO application.</p>
			LIMOLANDS FARM, VAGGS LAND, HORDLE, LYMINGTON, HAMPSHIRE	None	No comment on the temporary / permanent nature of solar farm development noted by Mr Munro
			LITTLE SNODWORTH FARM, SNODWORTH H, LANGHO, LANCASHIRE	"Limited weight given to temporary nature of 25 years which is a significant period for harm to exist."	<p>In contrast to the Sunnica Scheme, this application was for small scale solar farm under the TCPA 1990. application.</p> <p>As with Redham Hall, Smallfield (above), the temporary nature of the scheme was a consideration in relation to impact on the Green Belt: <i>"Although time limited to a period of around 25 years, the proposal would nevertheless represent inappropriate development in the Green Belt, contrary to CS Key Statement EN1."</i> (Paragraph 106 of the Inspectors' report).</p> <p>This decision shows that the temporary and reversible nature of the solar farm</p>

ExQ2	Respondent	Question	Applicant's Response		
					<p>was a relevant matter in the planning balance. In this instance the inspector and the SoS chose to give it only limited weight. However, this is in the context of a TCPA application for a small scale solar farm and the particular set of circumstances of that application. The Applicant considered that the judgement of weight in this specific case if of limited, if any, relevance to the Sunnica DCO application.</p>
			<p>THREE HOUSES LAND, THREE HOUSE LANE, CODICOTE, HERTFORDS HIRE, SG4 8SU</p>	<p>"Despite 30 year "temporary" impact on landscape considered long term. Duration and reversibility given limited weight in the planning balance."</p>	<p>In contrast to the Sunnica Scheme, this application was for small scale solar farm under the TCPA 1990.</p> <p>As with the above, the temporary nature of the scheme was a consideration in relation to impact on the Green Belt: "...<i>The duration and reversibility of the development is a material consideration, but the loss of openness for this part of the Green Belt for 30 years, and the landscape harm, albeit reducing over time as screen planting matured, would endure for a long time. I consider that the duration and reversibility of the development are factors that should be given limited weight in the planning balance that applies here.</i>" (Paragraph 92 of the Inspector's Report).</p> <p>This decision shows that the temporary and reversible nature of the solar farm was a relevant matter in the planning balance. In this instance the inspector</p>

ExQ2	Respondent	Question	Applicant's Response		
					and the SoS chose to give it only limited weight. However, this is in the context of a TCPA application for a small scale solar farm and the particular set of circumstances of that application. The Applicant considered that the judgement of weight in this specific case if of limited, if any, relevance to the Sunnica DCO application.
			LAND AT SNARLTON FARM, SNARLTON LANE, MELKSHAM, WILTSHIRE, SN12 7QP	None	No comment on the temporary / permanent nature of solar farm development noted by Mr Munro
			RECTORY FARM, RECTORY LANE, UPTON WARREN, WORCESTE RSHIRE	None	No comment on the temporary / permanent nature of solar farm development noted by Mr Munro
			HANGMANS HALL FARM TWENTY ACRE LAND SUTTON CHENEY	None	No comment on the temporary / permanent nature of solar farm development noted by Mr Munro
			WAUNTYSS WG FARM,	"The contention that the solar park will be in	A DNS for a 30MW scheme in Wales. Therefore considered under a different

ExQ2	Respondent	Question	Applicant's Response	
			<p>ABERTYSSW G, RHYMNEY, TREDGAR.</p>	<p>place for a period of 30 years only and will be fully reversible given little weight as the time represents a generation during which the lifetime for which the harm to the character and appearance of the area would subsist.”</p> <p>policy and decision-making context to the Scheme.</p> <p>The decision sets out that the temporary and reversible nature of the proposed development is relevant to the consideration of minerals: <i>“I consider that this temporary effect would not result in the permanent loss of the mineral resource. Consequently, the coal safeguarding area would not be compromised and the development would not prejudice future extraction as required by BGCBC LDP Policies...”</i> (Paragraph 305 of the Inspector's Report)</p> <p>The temporary and reversible nature of the Scheme therefore was given weight in the decision and was the main reason for impacts on minerals being considered acceptable.</p>
			<p>LAND AT HIGHER FARM FIFEHEAD MAGDALEN, SP8 5RT</p>	<p>“Inspector was mindful that the development would be largely reversible an impacts liberty to a period of 40 years.</p> <p>However, this was a very long period of time during which the adverse impacts will be experienced by very many local people.”</p> <p>In contrast to the Sunnica Scheme, this application was for small scale solar farm under the TCPA 1990.</p> <p>This decision took account of the temporary and reversible nature of the proposed development in consideration of heritage impact: <i>“The Heritage Balance. When the above harm to designated and non-designated heritage assets is weighed with the public benefits of the proposal I find this matter is finely balanced. Mindful that the development would be reversible and temporary in nature, the</i></p>

ExQ2	Respondent	Question	Applicant's Response		
					<p><i>heritage balance just tips in favour of granting planning permission.</i>" (Paragraph 41 of the Inspector's report)</p> <p>The temporary and reversible nature of the Scheme therefore was given weight in the decision and was the main reason for heritage impacts on being considered acceptable.</p>
			<p>SKINNERS FARM, SKINNERS LAND, EDENBRIDGE, KENT TN8 6LW</p>	<p>"Considered that 25 years is a considerable period of time for the loss of openness and landscape harm, albeit reducing as planting matured, would affect residents and visitors for a long time. The duration and reversibility of the proposal have been given limited weight."</p>	<p>In contrast to the Sunnica Scheme, this application was for small scale solar farm under the TCPA 1990.</p> <p>The duration and reversibility of the Scheme are acknowledged to be material considerations:</p> <p>Paragraph 94 of the Inspector's report: <i>"...The duration and reversibility of the development is a material consideration, but the loss of openness for this part of the Green Belt for 25 years, and the landscape harm, albeit reducing over time as screen planting matured, would affect residents and visitors for a long time. I consider that the duration and reversibility of the development are factors that should be given limited weight in the planning balance that applies here."</i></p> <p>This decision shows that the temporary and reversible nature of the solar farm was a relevant matter in the planning balance. In this instance the inspector and the SoS chose to give it only</p>



ExQ2	Respondent	Question	Applicant's Response		
					<p>limited weight. However, this is in the context of a TCPA application for a small scale solar farm and the particular set of circumstances of that application.</p> <p>In coming to their decision the SoS afforded substantial weight to the Green Belt, moderate weight to impact on the character and appearance of the area and only gave 'significant' weight to the renewable energy benefits of the proposed development. In the case of the Sunnica Scheme, the weighting would be different. No weight would be given to impact on the Green Belt (as the Scheme is not located in the Green Belt) and substantial positive weight should be afforded to the renewable energy benefits of the Scheme.</p> <p>The Applicant considers, therefore, that the judgement of weight in this specific case if of limited, if any, relevance to the Sunnica DCO application.</p>
			<p>LAND AT BATH ROAD, POYLE, BERKSHIRE SL3 OHY</p>	<p>"The Secretary of State said that while the life span of the panels would be around 25 years, this did not negate the fact that for ¼ of a century the proposal would conflict with the openness and</p>	<p>In contrast to the Sunnica Scheme, this application was for small scale solar farm under the TCPA 1990.</p> <p>The fact that the inspector and SoS gave no weight to the temporary and reversible nature of the proposed development in respect of consideration of its compatibility with the aim of the Green Belt to keep land</p>

ExQ2	Respondent	Question	Applicant's Response		
				protecting the countryside."	permanently open is of no relevance to the Scheme, since it is not located in the Green Belt.  However, the Applicant notes that the SoS and inspector did not overtly agree with Slough Borough Council's assertion that the proposed development should be considered as if it was having a permanent impact in the Green Belt.
			HAVERING GROVE FARM, 552A RAYLEIGH ROAD, HUTTON, ESSEX, CM13 1SH	"The reversibility of this scheme should not be an influential factor in determining whether the scheme should go ahead."	In contrast to the Sunnica Scheme, this application was for small scale solar farm under the TCPA 1990.  The point identified by Mr Munro relates specifically to impact on the Green Belt. The fact that the inspector and SoS gave no weight to the temporary and reversible nature of the proposed development in respect of consideration of its compatibility with the aim of the Green Belt to keep land permanently open is of no relevance to the Scheme, since it is not located in the Green Belt.
			HUDDLESTONE FARM, HORSHAM ROAD, STEYNING, WEST SUSSEX, BN44 3AD	"However, the view was taken that a period of 30 years, being the lifetime of the proposal, is considerable period of time. Unlike the inspector, no positive weight was applied to reversibility."	In contrast to the Sunnica Scheme, this application was for small scale solar farm under the TCPA 1990.  The fact that the SoS gave no positive weight to reversibility of this small scale solar farm in consideration of compliance with local development plan policies relating to consideration of the localised impacts and impacts

ExQ2	Respondent	Question	Applicant's Response		
					<p>on the South Downs National Park is of limited or no relevance to the DCO for the Scheme.</p> <p>It is also noted that the Inspector did give significant weight (in combination biodiversity benefits and the grid connection) to the reversibility of the proposed development.</p> <p>In coming to their decision the SoS afforded substantial weight to the 'harmful and pervasive' impact on the local landscape, and factored in impact on the outlook from South Downs National Park. They only gave 'significant' weight to the renewable energy benefits of the proposed development. In the case of the Sunnica Scheme, the weighting would be different. No weight would be given to impact on a national park (as the Scheme has no impact on a national park) and substantial positive weight should be afforded to the renewable energy benefits of the Scheme.</p>
			<p>LAND LYING TO THE WEST OF COLLEGE FARM, BOTSY LANE, ALDRIDGE, WALSALL</p>	<p>"Although the Secretary of State agreed that the installation could technically be described as temporary. 25 years will be a significant length of time and a long period during which harm would persist. The prospect of eventual restoration of the site</p>	<p>In contrast to the Sunnica Scheme, this application was for small scale solar farm under the TCPA 1990.</p> <p>The point identified by Mr Munro relates specifically to impact on the Green Belt. In this case, the SoS and inspector did give weight to the temporary nature and reversibility of the proposed development when considering impact on the Green Belt,</p>

ExQ2	Respondent	Question	Applicant's Response	
			after that time did not provide adequate justification to discount the harm caused."	but concluded that it did not provide 'adequate justification to discount the harm caused' to the Green Belt. This consideration of Green Belt impact is of no relevance to the Scheme, since it is not located in the Green Belt.
Q2.0.3		Question not for Applicant		
Q2.0.4		Question not for Applicant		

Q2.0.5	The Applicant	<p><b>Electricity generation and food production</b></p> <ul style="list-style-type: none"> <li>Where in the Application is the Applicant's best estimate and explanation of the likely output of the amount of electricity this scheme will realistically generate above the minimum 50MW capacity for its classification as an NSIP?</li> <li>Is the margin of output over the minimum 50MW capacity, that may substantiated by robust evidence as likely to obtain during its operation, a relevant consideration to weigh against the loss, for the duration of 40 years, of food production in the arable fields proposed to be developed?</li> </ul>	<p>The Applicant was unable at the point of submitting the Application to provide an electrical output from the Scheme given that the detailed design had not been undertaken. It was also considered that the electrical output was not a matter which effects the environmental impact arising from the Scheme – other parameters were better suited for this. Therefore the Application documentation did not include any final electrical output figures. However, the Applicant did set out the estimate of the energy generation in the first year of operations of the project as 643,361 MWh in the ES Chapter 6: Climate Change [APP-038]. Further details including an estimated annual degradation factor of 0.55% resulting in an estimated generation figure of 518,850 MWh in the final year of operation and a total energy generation figure of around 23,157,269 MWh over the 40-year assessed lifetime have been presented in the same chapter.</p> <p>The figures provided in Chapter 6 do not take into account the changes to the Application submitted at this Deadline. The table below does take this into account and it also sets out the current estimate for total installed solar PV power capacity by field. It is felt that providing this data on a field by field basis will assist the Ex A in understanding the Applicant's responses to other questions posed during this round of questions.</p> <p>The estimated installed power capacity is greater in total than the 500MW AC grid connection owing to the losses in the system from equipment such as inverters and transformers and therefore the design oversizes in order to ensure that the system operates as much of the time as possible close to its maximum capacity provided for under its grid connection agreement. It is the case that the Applicant will never be able to export more electricity than its grid connection agreement allows for.</p>
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			<table border="0"> <thead> <tr> <th style="text-align: left;">FIELD</th> <th style="text-align: right;">POWER (Wp)</th> </tr> </thead> <tbody> <tr><td>W03</td><td style="text-align: right;">29,157,100</td></tr> <tr><td>W04</td><td style="text-align: right;">27,869,100</td></tr> <tr><td>W05</td><td style="text-align: right;">34,421,800</td></tr> <tr><td>W06</td><td style="text-align: right;">26,919,200</td></tr> <tr><td>W07</td><td style="text-align: right;">27,965,700</td></tr> <tr><td>W08</td><td style="text-align: right;">18,515,000</td></tr> <tr><td>W09</td><td style="text-align: right;">10,078,600</td></tr> <tr><td>W10</td><td style="text-align: right;">16,550,800</td></tr> <tr><td>W11</td><td style="text-align: right;">15,472,100</td></tr> <tr><td>W12</td><td style="text-align: right;">21,670,600</td></tr> <tr><td>W15</td><td style="text-align: right;">52,453,800</td></tr> <tr><td>E01</td><td style="text-align: right;">13,556,200</td></tr> <tr><td>E02</td><td style="text-align: right;">1,432,900</td></tr> <tr><td>E03</td><td style="text-align: right;">19,964,000</td></tr> <tr><td>E04</td><td style="text-align: right;">12,992,700</td></tr> <tr><td>E05</td><td style="text-align: right;">43,502,200</td></tr> <tr><td>E08</td><td style="text-align: right;">6,456,100</td></tr> <tr><td>E09</td><td style="text-align: right;">8,194,900</td></tr> <tr><td>E10</td><td style="text-align: right;">12,187,700</td></tr> <tr><td>E12</td><td style="text-align: right;">41,505,800</td></tr> <tr><td>E13</td><td style="text-align: right;">14,715,400</td></tr> <tr><td>E14</td><td style="text-align: right;">8,581,300</td></tr> <tr><td>E15</td><td style="text-align: right;">8,243,200</td></tr> <tr><td>E16</td><td style="text-align: right;">8,436,400</td></tr> <tr><td>E17</td><td style="text-align: right;">7,969,500</td></tr> <tr><td>E18</td><td style="text-align: right;">6,069,700</td></tr> <tr><td>E19</td><td style="text-align: right;">16,502,500</td></tr> <tr><td>E20</td><td style="text-align: right;">10,915,800</td></tr> <tr><td>E21</td><td style="text-align: right;">9,901,500</td></tr> <tr><td>E22</td><td style="text-align: right;">6,375,600</td></tr> <tr><td>E24</td><td style="text-align: right;">8,162,700</td></tr> <tr><td>E25</td><td style="text-align: right;">6,665,400</td></tr> <tr><td>E26</td><td style="text-align: right;">5,119,800</td></tr> <tr><td>E27</td><td style="text-align: right;">6,488,300</td></tr> <tr><td>E28</td><td style="text-align: right;">5,602,800</td></tr> <tr><td>E29</td><td style="text-align: right;">7,341,600</td></tr> <tr><td>E30</td><td style="text-align: right;">17,854,900</td></tr> <tr><td>E31</td><td style="text-align: right;">29,801,100</td></tr> <tr><td>E32</td><td style="text-align: right;">4,813,900</td></tr> <tr><td><b>TOTAL Wp</b></td><td style="text-align: right;"><b>630,427,700</b></td></tr> <tr><td><b>TOTAL MWp</b></td><td style="text-align: right;"><b>630</b></td></tr> </tbody> </table> <p>Regarding the second bullet point of the question, the Applicant notes that the relevant context for policy purposes (and therefore decision-making purposes under the Planning Act 2008) is one that is based on the agricultural land classification system and seeking to limit the loss of best and most versatile agricultural land, rather than a restriction on the loss of agricultural land of any type and the consequential effects this may have on food production. Paragraph 5.10.15 of NPS</p>	FIELD	POWER (Wp)	W03	29,157,100	W04	27,869,100	W05	34,421,800	W06	26,919,200	W07	27,965,700	W08	18,515,000	W09	10,078,600	W10	16,550,800	W11	15,472,100	W12	21,670,600	W15	52,453,800	E01	13,556,200	E02	1,432,900	E03	19,964,000	E04	12,992,700	E05	43,502,200	E08	6,456,100	E09	8,194,900	E10	12,187,700	E12	41,505,800	E13	14,715,400	E14	8,581,300	E15	8,243,200	E16	8,436,400	E17	7,969,500	E18	6,069,700	E19	16,502,500	E20	10,915,800	E21	9,901,500	E22	6,375,600	E24	8,162,700	E25	6,665,400	E26	5,119,800	E27	6,488,300	E28	5,602,800	E29	7,341,600	E30	17,854,900	E31	29,801,100	E32	4,813,900	<b>TOTAL Wp</b>	<b>630,427,700</b>	<b>TOTAL MWp</b>	<b>630</b>
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			<p>EN-1 states that the decision maker "...should give little weight to the loss of poorer quality agricultural land (in grades 3b, 4 and 5)...". Paragraph 2.48.14 of Draft NPS EN-3 states that "<i>The Agricultural Land Classification (ALC) is the only approved system for grading agricultural quality in England and Wales</i>". There is no policy test in NPS EN-1, Draft NPS EN-1 or Draft NPS EN-3 about the loss of agricultural land leading to a reduction in food production. In addition it is noted that the Secretary of State's decision on the Little Crow Solar Park demonstrates that the loss of non-BMV agricultural land was not given weight in that decision and that the temporary and reversible nature of the scheme was a relevant consideration of the loss of BMV agricultural land. The SoS's decision letter states at paragraph 4.50 that: "<i>The majority of the agricultural land that would be used is Grade 3b, which does not constitute BMVL, although 36.6ha would be Grade 3a (which is BMVL) [ER 4.10.37]. This would be affected for the 35 year lifetime of the proposed Development and then be returned to agricultural use, and the ExA considered this did not amount to a permanent loss of farmland [ER 4.10.38]... .. The Secretary of State agrees with the ExA's approach to this issue.</i>" Extracts of the SoS's decision letter referred to in these answers are included in Appendix A.</p> <p>The Applicant would therefore suggest that the loss of non-BMVL agricultural land, and any associated loss of food production for the life of the Scheme should not be attributed any weight in the SoS's decision.</p> <p>Notwithstanding the above, should the SoS decide to depart from policies in the existing and emerging NPS and consider the loss of food production during the life of the Scheme to be an important and relevant matter, and to be weighted against the nationally significant benefits of the Scheme in terms of renewable energy generation, then the Applicant considers minimal weight should be attributed to the alleged impact on food production, given the very small proportion of agricultural land proposed to be included in the Application in the context of the national, regional and county figures.</p> <p>The Department of Food and Rural Affairs (DEFRA) published "Agricultural land use in England" on 29 September 2022. An extract is submitted as Appendix C. This gives estimates of land use, crop areas and land ownership for England from the Survey of Agriculture and Horticulture run by the Department for Environment, Food and Rural Affairs in June 2022. This sets out that the utilised agricultural area for</p>
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			<p>England (UAA) is 8.9 million hectares in 2022 and accounts for 69% of the total area of England.</p> <p>The DEFRA “Agricultural facts – East of England”, 2019, (submitted as Appendix D) sets out that there are 1,411,000 hectares of agricultural land in the East of England. This also refers to Table P400b of Ministry of Housing, Communities and Local Government “Land Use Statistics England 2018”, published 16 July 2020 (extract submitted as Appendix E) sets out the total amount of agricultural land in each local authority area in England. This shows that the total amount of agricultural land in Cambridgeshire and Suffolk is 529,805 hectares.</p> <p>The Site area of the Scheme excluding the cable route is 981 hectares. Based on the above, this equates to approximately:</p> <ul style="list-style-type: none"> <li>• 0.01% of agricultural land in England.</li> <li>• 0.06% of agricultural land in the East of England</li> <li>• 0.19% of agricultural land in Cambridgeshire and Suffolk.</li> </ul> <p>In conclusion, should the renewable energy generation benefits be weighed against the alleged loss of food production at the Site for the duration of the Scheme, the benefits of the Scheme would substantially outweigh the loss on the basis that:</p> <ol style="list-style-type: none"> <li>1) 94% of the land is lower grade, non-BMV, and in accordance with NPS EN-1 the decision maker should give little weight to its loss; and</li> <li>2) The loss represents a tiny proportion of the agricultural land in England, the East of England and the host county council authority areas.</li> </ol> <p>In addition, the loss is reversible and would not amount to the permanent loss of farmland.</p>
<p><b>Q2.0.6</b></p>	<p>The Applicant</p>	<p><b>NPS EN1</b> Paragraph 5.9.21 of NPS-EN1 notes that ...“<i>reducing the scale of a project can help to mitigate the visual and landscape effects of a proposed project. However, reducing the scale or</i></p>	<p>The Applicant agrees in principle that different parts of the Scheme create different levels of landscape and visual impact. Indeed, the Applicant’s assessment of landscape effects set out in ES Chapter 10 – Landscape and Visual Amenity [APP-042] identifies different levels of landscape impact resulting from different parts of the Scheme. Therefore it follows that the removal of different parts of the Scheme would result in differing degrees of landscape benefit.</p>

		<p><i>otherwise amending the design of a proposed energy infrastructure project may result in a significant operational constraint and reduction in function – for example, the electricity generation output. There may, however, be exceptional circumstances, where mitigation could have a very significant benefit and warrant a small reduction in function. In these circumstances, the IPC may decide that the benefits of the mitigation to reduce the landscape and/or visual effects outweigh the marginal loss of function.”</i></p> <p>SCC comments in its D4 submissions concerning ISH3 [REP4-125] that whether certain parts of the scheme can be removed without making the overall scheme unviable is a ‘fact-sensitive’ question, but solar photovoltaic generation projects are inherently modular and each part of the site provides a proportional contribution to the overall benefit; a reduction in site area results in a proportional reduction in electricity generation. However, landscape impact is not generated evenly across the site, so removal of portions of a scheme (even considerable portions) can create landscape benefits which are disproportionately great compared to the loss of generation. Does the Applicant agree and if not, why not?</p>	<p>However, the removal of sections of the Scheme could result in a significant operational constraint and reduction in function of the Scheme, depending on how much of the Scheme is removed and the location of any parts that are removed.</p> <p>When considering whether the removal of a section of the Scheme in order to reduce landscape or visual impact is justified, paragraph 5.9.21 of NPS-EN1 directs that for a reduction in scale to be warranted it must result in “<i>a very significant benefit</i>” and only “<i>a small reduction in function</i>”. It sets out that the existence of circumstances where “<i>mitigation to reduce landscape and/or visual effects outweigh the marginal loss of function</i>” would be “<i>exceptional</i>”. This accords with the general need for renewable energy generation identified in national policy.</p> <p>The Applicant considers that that it is not possible to remove “<i>considerable portions</i>” of the Scheme without resulting in a significant reduction in function (i.e. electricity generation output).</p> <p>Considering the Council's proposals for removal:</p> <p>In respect of West Site A (parcels W3-W12), the Applicant notes that:</p> <ul style="list-style-type: none"> <li>• in its Deadline 4 and other Deadline 5 submissions, it has been made clear that the Limekilns cannot be considered to be a ‘highly valued landscape’. It has no designation or recognition in national or local policy; and would not be considered highly valued when applying the criteria in Landscape Institute Technical Guidance Note (TGN) 02/21: <i>Assessing landscape value outside national designations</i>. This low status must therefore be what is balanced against the benefits of the Scheme; notwithstanding the feelings that Interested Parties might have; and</li> <li>• through its assessments in the ES and Planning Statement, and further to the information on Chippenham Park RPG set out in its Deadline 5 submissions, it can be considered that there are no heritage reasons as to why those fields could not be consented.</li> </ul> <p>As set out in its answer to SWQ 2.0.5, losing fields W3-W12 would lead to the loss of over 228MW of output. This would mean losing almost half of the available grid connection at Burwell substation.</p>
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			<p>Furthermore, as confirmed in its ISH2 summary [REP4-030], given this loss in generation, coupled with the costs that would need to be maintained for the rest of the Scheme and the cable corridor (without even considering the issues that would then arise in terms of whether the current Grid Connection Corridor would be an acceptable route in planning or compulsory acquisition terms if both West Site A and B were removed), the Applicant would most likely not proceed with the Scheme.</p> <p>In conclusion, the Applicant considers that removal of fields W03-W12 would therefore:</p> <ul style="list-style-type: none"> <li>• not create a disproportionate benefit in landscape terms as the impact that the Scheme is causing is not great in policy terms;</li> <li>• not just result in a significant operational constraint – it would remove all Scheme benefits as the Scheme would no longer proceed; and</li> <li>• even if the Applicant proceeded with the Scheme, the loss of over 228MW of output can in no way be considered as a marginal loss of function, even when compared to any apparent landscape benefit.</li> </ul> <p>In respect of fields E05, E12 and E13, the Applicant notes that:</p> <ul style="list-style-type: none"> <li>• The landscape has no designation or recognition in national or local policy. This low status must therefore be what is balanced against the benefits of the Scheme; notwithstanding the feelings that Interested Parties might have.</li> <li>• The LVIA summarised within Chapter 10 of the ES [APP-042] acknowledges that there will be residual visual effects, which include views of parts of development within parcels E12 and E13, but concludes that the visual effects of parcels E12 and E13 would be not significant by year 15 of operation.</li> <li>• The Applicant acknowledges there will be some significant effects on the landscape that will remain at year 15 of operation, but has demonstrated that the development proposed within parcels E05, E12 and E13 can be integrated into the landscape within the framework of mitigation proposed.</li> </ul>
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			<ul style="list-style-type: none"> <li>• With regards to compensatory benefits, the Applicant has proposed a number of new permissive routes and improvements to green infrastructure as set out in the OLEMP and illustrated on the Environmental Masterplans. This includes substantial areas of woodland planting and hedgerow planting and enhancement which will reinforce the existing landscape framework. This planting will also be effective in further limiting the visual impacts of the built elements of the Scheme.</li> </ul> <p>As set out in its answer to SWQ 2.0.5, losing field E05 would lead to the loss of approximately 43.5MW of output, losing field E12 would lead to the loss of approximately 41.5MW of output and losing field E13 lead to the loss of approximately 14.7MW of output. Collectively this would mean losing almost 100MW of output, approximately a fifth of the available grid connection at Burwell substation.</p> <p>The Applicant has already made amendments to E05 which reduce its output in order to provide a standoff to the B50 crash site, and provide a viewpoint point for the crash site in E05 connecting with a further permissive path as detailed in the updated OLEMP and Environmental Masterplans issued at Deadline 5.</p> <p>In light of the above, the Applicant considers that the further reduction of the Scheme to remove one, some or all of fields E05, E12, and E13 would:</p> <ul style="list-style-type: none"> <li>• not create a disproportionate benefit in landscape terms as the impact that the Scheme is causing is not great in policy terms;</li> <li>• result in a significant operational constraint; and</li> <li>• the loss of between 14.7MW and 100MW of output is not considered to be a marginal loss of function, even when compared to any apparent landscape benefit.</li> </ul> <p>The Councils' proposals therefore could not accord with the principles set out by Paragraph 5.9.21 of NPS-EN1.</p>
<p><b>Q2.0.7</b></p>	<p>The Applicant</p>	<p><b>NPS EN-1</b> How would a loss of function, and/or any established realistic increase over the minimum threshold of 50MW</p>	<p>As per the Applicant's answer to Q2.0.6, above, paragraph 5.9.21 of NPS-EN1 and paragraph 5.10.23 of Draft NPS EN-1 direct that for a loss of function to be warranted by way of its associated landscape benefit it must result in "a very significant benefit" and only "a small reduction in function". It sets out that the</p>

		<p>capacity, be weighed against landscape benefits to be created by removal of panels on the parcels as proposed by SCC and CCC?</p>	<p>existence of circumstances where <i>“mitigation to reduce landscape and/or visual effects outweigh the marginal loss of function”</i> would be <i>“exceptional”</i>.</p> <p>SCC and CCC have proposed the removal of panels in E12, E13, E05, and W03 to W12. The generation capacity of each of these parcels is set out below:</p> <table border="1" data-bbox="1048 391 1592 788"> <thead> <tr> <th>Parcel</th> <th>Power (MW)</th> </tr> </thead> <tbody> <tr> <td>E12</td> <td>41.5</td> </tr> <tr> <td>E13</td> <td>14.7</td> </tr> <tr> <td>E05</td> <td>43.5</td> </tr> <tr> <td>W03 to W12</td> <td>228.6</td> </tr> <tr> <td><b>Total</b></td> <td><b>328.3</b></td> </tr> </tbody> </table> <p>The removal of all of the parcels proposed by the Councils would result in the loss of more than 328 MW of generation capacity. In the language of NPS EN-1, this would represent a significant loss of function. The loss of E12 would result in the loss of 41.5 MW of generation capacity. In the language of NPS EN-1, this would represent a significant loss of function, and equates almost to a nationally significant infrastructure project on its own.</p> <p>The loss of E13 would result in the loss of 14.7 MW of generation capacity, which represent a significant loss of function.</p> <p>The loss of E05 would result in the loss of 43.5 MW of generation capacity. This would represent a significant loss of function and equates almost to a nationally significant infrastructure project on its own.</p> <p>The loss of W03-W12 would result in the loss of 228.6 MW of generation capacity. This equates to more than 150% of the generation capacity of the candidate design</p>	Parcel	Power (MW)	E12	41.5	E13	14.7	E05	43.5	W03 to W12	228.6	<b>Total</b>	<b>328.3</b>
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			<p>of the Little Crow Solar Park NSIP. In the language of NPS EN-1, this would represent a significant loss of function.</p> <p>At best, this loss of function would substantially reduce the renewable energy generation benefits of the Scheme. This would vastly reduce the contribution that the Scheme would make to the achievement of net zero and delivery of a secure and affordable energy system, as per the Governments commitments and targets. At worst, and what is most likely, it would mean that the Applicant would not proceed with the Scheme at all, meaning all Scheme generation benefits are lost.</p> <p>The Applicant's answer to Q2.0.11 demonstrates that the removal of all or part of parcels W03-W12, E12, E13 and E05 would not be justified and sets out a robust justification for the retention. In summary, beyond a short distance from the Order limits the impacts on the landscape are negligible, low or very low and not significant. The landscapes affected are also not nationally designated, locally designated or considered to be a 'highly valued landscape' in policy terms. This low status and localised level of impact must therefore be what is balanced against the benefits of the Scheme; notwithstanding the feelings that Interested Parties might have.</p> <p>Paragraphs 5.9.15 of NPS EN-1 and 5.10.17 of Draft NPS EN-1 set out that outside of designated areas the decision maker <i>"should judge whether any adverse impact on the landscape would be so damaging that it is not offset by the benefits (including need) of the project."</i> In the context of the low status of the landscape, the localised impact of the Scheme on the landscape and the substantial renewable energy benefits of the Scheme, the Applicant considers that it is clear that the impacts of the Scheme on the landscape are not so damaging that they outweigh its benefits.</p> <p>In addition to the above, it is also noted that Paragraphs 5.9.16 of NPS EN-1 and 5.10.8 of Draft NPS EN-1 clarify that when making this consideration the decision makers should consider whether adverse landscape impacts are capable of being reversed in a timescale that they consider reasonable.</p> <p>The Applicant considers that the loss of function (i.e. generation capacity) that would result in removal of all, or any, of the parcels identified by SCC or CCC would be significant, and that the benefits of removal of any of the parcels would not come</p>
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			close to meeting circumstances where NPS EN-1 and Draft NPS EN-1 set out that a reduction in scale would be warranted.
<b>Q2.0.8</b>	The Applicant	<p><b>Land parcels E12, E13, E05</b></p> <p>Does the Applicant agree with SCC in its D4 post hearing submission on ISH3 [REP4-125] that there would be no procedural difficulty in the removal of parcels E12, E13 and E05 from the development in the event that the ExA recommended their removal within its preferred DCO?</p>	<p>This answer focuses on the procedural implications of removal of these parcels if that was determined to be necessary for the Secretary of State. This is without prejudice to the Applicant's position that for the reasons expressed in answers to other SWQs on this topic, the Applicant considers that this is not an action that needs to be taken.</p> <p>In any event, the Applicant considers that it would not be simple to remove parcels E05, E12 and E13. The reasons for this are set out below.</p> <p>As a starting point, it is noted that these parcels do not make up a specific lettered Works number within Schedule 1 of the DCO. As such, it is not simply a case of removing Works Numbers from the DCO and related documentation.</p> <p>Furthermore, whilst it is acknowledged that the parcels themselves can be split into specific plot numbers as follows:</p> <ul style="list-style-type: none"> <li>• E05: Plots 02-02, 03-01 and 03-02;</li> <li>• E12: Plot 05-03; and</li> <li>• E13: Plots 05-07 and 07-01,</li> </ul> <p>these plots cannot be seen in isolation.</p> <p>Firstly, they have with them associated adjacent/related rights plots to connect to other parts of the Proposed Scheme. By way of example, if E12 were to be removed, a strip of rights plots would still need to be taken across that field, to allow the cable corridor to connect to parcels E24-E32. The Applicant does not consider that this could be accommodated by amending the compulsory acquisition powers on plot 05-03 such that only rights for the cable installation could be included in this plot, as it is considered that the whole field would not be required for such uses, thus failing the compulsory acquisition tests. It would be necessary to amend the size of the plot to reflect the size of the cable corridor.</p> <p>Consideration would then need to be given as to how the cable would get from parcel E24 to parcel E14. Unless the Applicant could persuade the landowner (who would now have lost his anticipated rental outcome from E12) to locate this on the eastern edge of plot 05-03, this would potentially involve utilising the full length of the U6006. That scenario would require additional land from what is currently shown</p>

			<p>on the Land plans; and would involve impacts on a location which has already drawn much comment during this Examination. Furthermore, consideration would then need to be given as to whether plots 05-04 and 07-02 could be justifiably retained. At the very least, procedurally, it is considered that there would be a need for the landowner to be able to express a view in Examination about the suitability of a cable corridor on his land in the absence of solar on the rest of the field.</p> <p>Secondly, it is also noted that the aforementioned plots have within them various aspects of landscaping and ecological mitigation shown on the OLEMP (including in particular in E12 a large area of stone curlew mitigation) that would require the plots to be split in order for that mitigation not to be lost. To take a broad brush approach to simply remove the above plots would therefore potentially mean that important mitigation measures are lost.</p> <p>In any event, if these parcels were to be lost, the Applicant would need to re-consider the appropriateness of its mitigation and enhancement proposals, to ensure that they retain effectiveness and/or remain necessary for the remaining Scheme. This would therefore lead to the need for changes to the OLEMP, Environmental Masterplan and the Works Plans.</p> <p>Thirdly, if these parcels were to be lost, the Applicant would also need to give thought as to whether the remaining land needs to be re-arranged in respect of the positioning and massing of the solar, in order to maximise the amount of energy created (and thus the grid connection). This is particularly the case in the context of the submissions it made at Deadline 4. Such changes may also lead to the need for changes to mitigation, as well as the location and layout of other parts of the development such as compounds and the BESS. This would therefore need consideration across the land and works related documents and the OLEMP to ensure that the right (and justified) powers are sought for each plot and the right and appropriate mitigation is in place. It would also likely require environmental appraisal to be undertaken, to ensure that the conclusions of the Environmental Statement are not materially changed.</p> <p>In conclusion, therefore, the Applicant considers that it would not be a simple step to, for example, simply add drafting to the relevant articles of the DCO to say that the relevant power could not be used in the above plots, to facilitate the removal of these parcels.</p> <p>Given the points above the Applicant considers that any proposal to remove parcels E05 E12 and E13 would, as a minimum, require the submission of versions of the</p>
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			<p>certified documents that would be considered as 'Without E05, E12 and E13' documents, including an appropriate version of the DCO. Given the volume of changes to those documents that would be needed, this would be a formal change to the application, and the Applicant considers, given also the loss of over 99 MW (i.e. a NSIP in itself) that it would involve, likely a material one, with all the procedural implications that arise from that.</p> <p>Even if the ExA considered that consultation on such changes was not required, at the very least time would be needed in Examination for Interested Parties to comment on the updated documents and the Applicant to respond accordingly. This would require major amendment to the Examination Timetable as it currently stands.</p>												
<b>Q2.0.9</b>		Question not for Applicant													
<b>Q2.0.10</b>		Question not for Applicant													
<b>Q2.0.11</b>	The Applicant	<p><b>Landscape</b> In order for the scheme to become acceptable in landscape terms, the county councils consider it necessary to remove further parcels (in Suffolk E12, in Cambridgeshire W03 to W12, and the balance of E05) (see SCC D4 post ISH2 submission [REP4-124]).</p> <p>How if at all would removal of all or part of the specified parcels present a significant operational constraint on the Proposed Development? If so, please provide a robust justification for their retention.</p>	<p>As per the Applicant's answer to Q2.0.6, above, paragraph 5.9.21 of NPS-EN1 and paragraph 5.10.23 of Draft NPS EN-1 direct that for a loss of function to be warranted by way of its associated landscape benefit it must result in "a very significant benefit" and only "a small reduction in function". It sets out that the existence of circumstances where "mitigation to reduce landscape and/or visual effects outweigh the marginal loss of function" would be "exceptional".</p> <p>SCC and CCC have proposed the removal of panels in E13, E05, and W03 to W12. The generation capacity of each of these parcels is set out below:</p> <table border="1"> <thead> <tr> <th>Parcel</th> <th>Power (MW)</th> </tr> </thead> <tbody> <tr> <td>E12</td> <td>41.5</td> </tr> <tr> <td>E13</td> <td>14.7</td> </tr> <tr> <td>E05</td> <td>43.5</td> </tr> <tr> <td>W03 to W12</td> <td>228.6</td> </tr> <tr> <td><b>Total</b></td> <td><b>328.3</b></td> </tr> </tbody> </table>	Parcel	Power (MW)	E12	41.5	E13	14.7	E05	43.5	W03 to W12	228.6	<b>Total</b>	<b>328.3</b>
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			<p>design of the Scheme has been an iterative process, which commenced in 2015 at the initial feasibility stage. It has been guided by the “criteria for good design” set out in the Overarching National Policy Statement for Energy EN-1 (NPS), published landscape character assessments and fieldwork analysis. This has resulted in the design process responding to the setting of the sites in order to develop a good design that takes advantage of the landscape and landform in order to reduce the impact of the Scheme on the landscape and limit the visual impact of the Scheme. The Applicant has applied a hierarchical approach to the design, by first considering the location, scale and positioning of built elements within the existing landscape framework. Through this approach the design retains perception of characteristic features, e.g. Pine Lines, distant skylines, landmarks and visual connections between settlements, thereby responding to setting and place. The Applicant’s Technical Note on Settlement Design Iteration, submitted at Deadline 2 as Appendix A to the Applicant’s Response to the First Written Questions [REP2-038] describes how landscape and visual effects have been an integral part of the design of the Scheme, and how that design has evolved to address landscape and visual effects identified through the Landscape and Visual Impact Assessment (LVIA) process. The following paragraphs set out how the evolution of the Scheme design has sought to minimise and mitigate the landscape impact of the parcels proposed for removal by SCC and CCC, as described in the Applicant’s Technical Note on Settlement Design Iteration, and summarises the conclusions of the Environmental Statement of the landscape impact of those parcels.</p>
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			<ul style="list-style-type: none"> <li> <p><b>W03-W12:</b> Figure 1 of the Applicant's Technical Note on Settlement Design Iteration (Appendix A of [REP2-038]) shows the design evolution of the Scheme in relation to Chippenham and Chippenham Park. As explained in paragraph 3.6.7 of the Design and Access Statement [APP-264], a design decision was made between statutory consultation and submission of the Application to omit parcels W13, W14 and W16 adjacent to Chippenham Park in response to feedback received from stakeholders, including local planning authorities. This moved the northern boundary of Sunnica West Site A approximately 600m further south and avoided encircling La Hogue Farm. As noted in paragraph 10.6.309 of the LVIA [APP-042], the ZTV shows no visibility of the Scheme across Chippenham or Chippenham Park. This is confirmed by Viewpoint (VP) 30 from Chippenham High Street, illustrated in Figure 10.54A and 10.54B [APP-227]. This figure shows that intervening vegetation and buildings screen views of the land within the Order limits from within Chippenham. Similarly, for VP31 in Figure 10.55A [APP-227] and VP32 within Chippenham Park shown in Figure 10.98A to 10.98C [APP-228], vegetation and the tall boundary wall would screen views of the Scheme. Updated ZTVs were submitted at Deadline 1 [REP1-008 to REP1-013].</p> <p>Effects on Local Landscape Character Area (LLCA) 21 (Snailwell), 23A (Chippenham), 23B (Chippenham Park), 25 (Kennett), 26 (The Limekilns and Gallops), and 41 (Newmarket) as a result of Sunnica West Site A (which largely comprises parcels W03-W12) are assessed by ES Appendix 10G: Landscape Effects [APP-042] as being either 'none' (LLCA 23A) or 'low' (LLCAs 23B and 26) and not significant during construction, operation and decommissioning of the Scheme. LLCA 24 (Lowland Estate Chalkland) which largely comprises the Sunnica West Site A site itself is assessed as experiencing a high impact during construction and decommissioning and a medium effect during operation, which are significant.</p> <p>Regarding LLCA26 (The Limekilns and Gallops), Limekilns cannot be considered to be a 'highly valued landscape'. It has no designation or recognition in national or local policy; and would not be considered highly valued when applying the criteria in Landscape Institute Technical Guidance Note (TGN) 02/21: Assessing landscape value outside national designations. This low status must therefore be what is balanced against the benefits of the Scheme; notwithstanding the feelings that Interested Parties might have.</p> </li> </ul>
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			<ul style="list-style-type: none"> <li> <p><b>E12:</b> Worlington (LLCA 8) is a small village to the south of the River Lark, within a rural and recreational landscape setting. Sunnica East Site B borders the southern and eastern edges of Worlington, though the nearest fields with solar panel arrays are approximately 0.5km to the south of the village within parcel E12, and 0.3km south of properties on Freckenham Road.</p> <p>Figure 8 of the Applicant's Technical Note on Settlement Design Iteration (Appendix A of [REP2-038]) shows the design evolution of the Scheme in relation to Worlington. The main changes were to introduce substantial ecological mitigation areas to the south west of the village and to remove the area directly south of the village from the Order limits. This effectively creates two parts to Sunnica East Site B, reducing its overall scale and impacts on the landscape setting of the village. The part of the Scheme previously proposed to the west of Parcel E12 has also been omitted to avoid a sense of coalescence with Freckenham and impacts on views on the journey between these settlements along the B1102 Freckenham Road.</p> <p>Native chalk grassland in parcel ECO3 to the south of Worlington, has been incorporated to create a substantial offset from Freckenham Road and residents in the village to reduce the perception of the solar panels and proximity to residents.</p> <p>The southern boundary of ECO3, which adjoins the proposed solar panels in Parcel E12, will be planted with hedgerows and woodland is proposed along the northern boundary of parcel E24. This planting will screen the panels and reduce the perception of the Scheme when travelling along Worlington Road.</p> <p>Effects on LLCA 4 (Barton Mills), 8 (Worlington), 9 (Six Acre Chalk Farmland), 12 (Freckenham), 14 (River Kennett) as a result of Sunnica East Site B, which includes parcel E12, are assessed by ES Appendix 10G: Landscape Effects [APP-042] as being 'none', 'very low' or 'low' which are neutral, negligible or minor and not significant, during construction, operation and decommissioning. LLCA 13 (Elms Sandlands Mosaic) which largely comprises Sunnica Ease Site B itself is assessed as experiencing a high impact during construction, year 1 of operation, and decommissioning and a medium effect during year 15 operation, which are significant.</p> </li> </ul>
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			<ul style="list-style-type: none"> <li> <p><b>E13:</b> Parcel E13 is located to the south east of parcel E12. Like parcel E12, it is offset from Worlington and from Freckenham Road by Native chalk grassland in parcel ECO3. Solar panels in E13 are set back from U6006 by at least 22m and the boundary fence is set back by at least 14m from U6006. Existing woodland is located between U6006 and parcel E13. This is illustrated by Figure 10 of the Outline Landscape and Ecology Management Plan [REP3-011].</p> <p>Parcel E13 is taken into account in the assessment of the landscape impacts of Sunnica East Site B, the conclusions of which are summarised under 'E12', above. In summary, no more than a low impact would result as a result of Sunnica East Site B on any LLCA outside of LLCA 13 which largely comprises Sunnica East Site B itself.</p> </li> <li> <p><b>E05:</b> Isleham (LLCA 10) is a nucleated village in a rural setting on the edge of the Fens, to the south of the River Lark. Isleham is approximately 0.5km to the northwest of the closest part of Sunnica East Site A (Parcel E05).</p> <p>The solar panel arrays have been sited away from Isleham to avoid the Scheme resulting in the physical coalescence of settlements. This assists in retaining the open character to the south of Beck Road, between Isleham and Freckenham, including the enhancement of the character and quality of the landscape through the introduction of ECO1 and ECO2, which are areas of proposed native grassland.</p> <p>Solar panels in parcel E05 have been offset from Beck Road via a landscape buffer of native grassland and woodland as illustrated in Section 2, presented in Figure 9 of the OLEMP [APP-108]. This reduces the proximity of the panels to road users and retains views along the road corridor of churches in Isleham and Freckenham to retain the perception of travelling through the landscape that separates the settlements. The proposed woodland planting, which has also been set back from the road, will provide a more vegetated setting to the southern part of the village, reflecting the pattern of woodland to the south of Isleham, adjacent to the B1104 (Station Road).</p> <p>Effects on LLCA 5, (West Row and Thistley Green), 6 (West Row Village Chalklands), 7 (River Lark Valley), 10 (Isleham), and LLCA 12 (Freckenham) as a result of Sunnica East Site A, in which parcel E05 is located, are assessed by ES Appendix 10G: Landscape Effects [APP-042] as being 'none', 'very low' or 'low' which are neutral, negligible or minor and not significant, during construction,</p> </li> </ul>
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			<p>operation and decommissioning. LLCA 11 (East Fen Chalklands), which includes Sunnica East Site A, itself is assessed as experiencing a medium impact during construction, operation and decommissioning, which is significant.</p> <p>NPS EN-1 paragraph 5.9.8 and Draft NPS EN-1 paragraph 5.10.9 set out the decision making principles for Energy NSIPs in relation to landscape impacts. They state that: <i>“Landscape effects depend on the existing character of the local landscape, its current quality, how highly it is valued and its capacity to accommodate change. All of these factors need to be considered in judging the impact of a project on landscape. Virtually all nationally significant energy infrastructure projects will have effects on the landscape. Projects need to be designed carefully, taking account of the potential impact on the landscape. Having regard to siting, operational and other relevant constraints the aim should be to minimise harm to the landscape, providing reasonable mitigation where possible and appropriate.”</i></p> <p>Further, NPS EN-1 paragraphs 5.9.14 to 5.9.16 and Draft NPS EN-1 paragraphs 5.10.16 to 5.10.18 provide additional policy on decision making in relation to landscape impacts in areas outside of nationally designated landscapes. Paragraphs 5.9.15 of NPS EN-1 and 5.10.17 of Draft NPS EN-1 set out that the scale of energy NSIPs means that <i>“they will often be visible within many miles of the site of the proposed infrastructure”</i> and that the decision maker <i>“should judge whether any adverse impact on the landscape would be so damaging that it is not offset by the benefits (including need) of the project.”</i> Paragraphs 5.9.16 of NPS EN-1 and 5.10.8 of Draft NPS EN-1 clarify that when making this consideration the decision maker should consider whether adverse landscape impacts are capable of being reversed in a timescale that they consider reasonable.</p> <p>In summary, through careful design, the landscape impacts of parcels W03-W12, parcel E12, parcel E13 and parcel E05 have been successfully limited to resulting in significant effects only to the LLCAs in which they are located. These are LLCA 24 (Lowland Estate Chalkland), LLCA 13 (Elms Sandlands Mosaic), and LLCA 11 (East Fen Chalklands), which are all assessed of medium sensitivity. In accordance with NPS EN-1 paragraph 5.9.15, these localised landscape impacts, which do not affect any designated landscape, are not considered to be so damaging that they are not offset by the nationally significant benefits of the Scheme in generating renewable electricity. Therefore, it is not necessary to remove any parcels, or parts of parcels,</p>
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			<p>from the Scheme in order to make it acceptable in landscape terms and the case for their retention is extremely strong.</p> <p>In particular, the removal of the entirety of parcels W03-W12 would result in the loss of more than 200 MW of renewable energy generation capacity. This would substantially and seriously harm the function of the Scheme, and would not come close to being justified by the avoidance of a localised 'medium' impact on a non-designated landscape during the operational phase.</p> <p>Regarding E05, the Applicant has already made some amendments that go some way to addressing the Councils' concerns. A new permissive path around the perimeter of the Scheme is proposed and land is excluded from development to avoid a World War II aircraft crash site, along with a proposals for a memorial to the casualties of the crash. The Applicant does not consider that the loss of generation capacity that would result from further reductions to E05 would be justified by the landscape benefits.</p> <p>Regarding E12, the scheme has already been reduced to the north of these parcels in order to provide offset to settlements and mitigate impact on stone curlew. The Applicant does not consider that the loss of generation capacity that would result from further reductions to E12 would be justified by the landscape benefits.</p> <p>Finally, regarding E13, the scheme has already been reduced to the north of these parcels in order to provide offset to settlements and mitigate impact on stone curlew and substantial offsets to U6006 are incorporated into the design. The Applicant does not consider that the loss of generation capacity that would result from further reductions to E13 would be justified by the landscape benefits.</p>
<p><b>Q2.0.12</b></p>	<p>The Applicant</p>	<p><b>General</b> We note that the contents page of your response to our first written questions was not hyperlinked: consequently, in view of the number of questions we needed to ask, it was difficult for us (and no doubt for other parties) to navigate the document. Please ensure that the contents page of your responses to</p>	<p>Noted, we will complete this going forwards to all submission documents.</p>

		these questions (and to all other documents) is hyperlinked to enable straightforward navigation.	
<b>Q2.0.13</b>	The Applicant	<p><b>Timescale of proposed development</b> We note that the timescale of the proposed development applied for is 40 years, whereas the projected operational life of the solar panels is likely to be approximately 25 years. Please explain why the time period applied for is not 25 or 50 years which would appear to relate more to the lifespan of the solar panels.</p>	<p>Both the operational timescale of the Scheme and the projected operational life of the solar panels are 40 years. A 25-year or 50-year time period would therefore not bear any relation to the lifespan of the solar panels.</p> <p>The above is consistent with Paragraph 2.49.9 of draft NPS EN-3, which states that the design life of solar panels can be longer than 30 years: <i>“Solar panels typically have a design life of between 25 and 30 years, although this can sometimes be longer”</i> (emphasis added). It goes on to state that <i>“Applicants may apply for consent for a specified period, based on the design life of the panels.”</i></p> <p>The proposed 40-year lifespan of the Scheme, including the solar panels, is set out in the DCO application, as summarised below.</p> <p>Chapter 3, Scheme Description, of the Environmental Statement <b>[REP2 -022]</b> sets out at paragraph 3.3.4 c that the operational life of the Scheme is 40 years.</p> <p>As set out by paragraph 6.3.23 of Chapter 6: Climate Change of the Environmental Statement <b>[APP-038]</b>, an indicative solar PV module type has been considered, which would have a warranty covering the first 30 years. The paragraph goes on to explain that PV panel degradation over time (from 0-40 years) has been factored into calculations for the performance of the Solar PV modules in assessing the climate change impact of the Scheme.</p> <p>It would not be an efficient use of resources to require the decommissioning of an operational solar farm after 25 years, which would be 15 years before the end of its design life and 5 years before the end of the warranty period for the solar PV arrays.</p>

### 3 Topic 2.1 Air Quality and Human Health

ExQ2	Respondent	Question	Applicant's Response
Q2.1.1	The Applicant	<p><b>Dust mitigation</b></p> <p>In relation to CCC's D4 submission, Comments on the Applicant's D3 and D3A submissions [REP4-137] page 1, as to the dust mitigation measures proposed, please clarify the locations for inspections referred to in the HRA Report to Inform an Appropriate Assessment [REP3-009,010].</p>	<p>Locations for proposed off-site daily inspections will be confirmed post-consent, as part of the Dust Management Plan required to be produced as part of the CEMP. Updates to the FCEMP made at Deadline 5 secure this.</p>
Q2.1.2	The Applicant	<p><b>Battery energy storage system (BESS): COMAH and P(HS) regulations</b></p> <p>Please comment on the precise legal authority (if any) on which one might rely to exclude the scope of the COMAH and P(HS) Regulations 2015 from application to BESS.</p>	<p>The Applicant is not seeking to exclude the scope of the COMAH regulations or the Planning (Hazardous Substances) Regulations 2015.</p> <p>The Applicant made submissions on this in:</p> <ul style="list-style-type: none"> <li>• Paragraph 8.2 of its Written Summary of Sunnica Limited's Oral Submissions at the Development Consent Order Issue Specific Hearing on 1<sup>st</sup> November Submitted at Deadline 2 [REP2-036]; and</li> <li>• The Applicant's Response to Dr Fordham's Deadline 3A Submissions submitted at Deadline 4 [REP4-034].</li> </ul> <p>The Applicant's position is set out in more detail in those submissions. In summary it is said that at this stage, without detailed design of the BESS, it is not known with certainty whether Hazardous Substances Consent or authorisation under the COMAH Regulations is required. If, following detailed design, it is determined that consent is required then the Applicant will apply for it at the relevant time.</p> <p>Section 120 of the Planning Act 2008 does allow an undertaker to seek the disapplication of legislative provisions which could include the above legislation. However, the Applicant has not sought to do this. Article 6 of the Development Consent Order [REP4-005] is the article which provides for disapplication of certain legislation which does not include the provisions referred to in the question.</p>

ExQ2	Respondent	Question	Applicant's Response
<p><b>Q2.1.3</b></p>	<p>The Applicant</p>	<p><b>BESS: design parameters</b></p> <p>With regard to the proposed BESS, is the design of the storage solution, chemical make-up of the batteries being proposed, capacity of individual units, density of storage, and configuration of enclosures not fundamental to an effective examination of the Application?</p> <p>If the Applicant is not yet in a position to describe clearly what is proposed whether for reasons of evolving development of battery solutions or otherwise, why should the Application not be regarded as premature?</p>	<p>BESS is rapidly evolving area of technology that will improve in the coming years. There is no justification for the Applicant to specify the detailed design of the BESS at this stage and as a result, the draft DCO [EN010106/APP/3.1] and supporting Works Plans [EN010106/APP/2.2] propose a degree of flexibility within defined parameters to allow the latest technology to be utilised at the time of construction. The design parameters are set out in the design principles.</p> <p>Given the flexibility applied for and in order to ensure a robust assessment of the likely significant environmental effects of the Scheme, the Environmental Impact Assessment (EIA) has been undertaken adopting the principles of the 'Rochdale Envelope' where appropriate, as described in the Planning Inspectorate Advice Note 9. This involves assessing the maximum (and where relevant, minimum) parameters for the Scheme where flexibility needs to be retained. This approach sets worst case parameters for the purpose of the assessment but does not constrain the Scheme from being built in a manner that would lead to lower environmental impacts.</p> <p>In addition, a detailed Outline Battery Fire Safety Management Plan [EN010106/APP/7.6] has been prepared which provides minimum requirements in terms of the design, construction and operation of the BESS within the Application.</p> <p>This approach is standard practice within the NSIP and TCPA planning regimes, and is the approach taken on the majority of, if not all of the standalone BESS and combined Solar/BESS developments within the UK. Therefore, it is not considered by the Applicant that the applicant is premature.</p>
<p><b>Q2.1.4</b></p>	<p>The Applicant</p>	<p><b>BESS: design assumptions</b></p> <p>Please comment on WSC's statement in D4 post ISH3 submission [REP4-132] page 5, that a significant number of assumptions have been made by the Applicant relating to the BESS and until the size, power rating and chemical make-up of the BESS is determined it is not possible to fully assess any potential air quality impacts.</p>	<p>It should be noted that WSC's comment in full is as follows (emphasis added):</p> <p><i>"WSC consider that a significant number of assumptions and therefore assertions have been made by the Applicant within the submitted documentation. Until the size, power rating and chemical make-up of the BESS is determined it is not possible to fully assess any potential air quality impacts. Provided SCC are the responsible authority for the discharge of Requirement 7 in relation to the OBFSMP, <b>WSC understands that these matters can be adequately addressed at the appropriate point post-consent.</b>"</i></p> <p>As such, it appears that WSC acknowledges that the detailed consequence modelling that will be undertaken at the detailed design stage will provide the full assessment required. It is confirmed that SCC is the responsible authority for Requirement 7. Further modelling assessments are secured via Requirement 7,</p>



ExQ2	Respondent	Question	Applicant's Response
			<p>which provides that a detailed BFSMP must be submitted and approved before any works on the BESS can commence and that it must be substantially in accordance with the OBFSMP. The OBFSMP requires the consequence modelling to be undertaken.</p>
<p><b>Q2.1.5</b></p>	<p>The Applicant</p>	<p><b>Discharge of Requirement 7: DCO</b> Are you satisfied with the arrangements for discharge of DCO Requirement 7 in relation to the OBFSMP, as currently drafted (Rev 03, 18 December 2022 [REP4-006])? If not, please explain and supply your proposed form of amended wording.</p>	<p>The Applicant confirms that it is satisfied with the arrangements for discharging requirement 7 in the draft DCO. The discharging arrangements were updated in the draft DCO submitted at Deadline 5 following engagement with the Councils at the Hearings and in their written submissions asking for the County Council to be the discharging authority.</p> <p>Following feedback from the Councils, the Applicant also updated paragraph 2 of Schedule 13 to the draft DCO at Deadline 5 to include a requirement for the discharging authority to consult with the other tier authority in its area prior to determining the request. This ensure that, whist the relevant county authority is the discharging authority, it must consult the relevant planning authority prior to discharge, along with the consultation bodies listed in requirement 7(4). The Applicant has updated the list of consultation bodies to include the Environment Agency following feedback from the Environment Agency in its written submission.</p>
<p><b>Q2.1.6</b></p>	<p>The Applicant</p>	<p><b>BESS: consultation</b> In your response to our ExQ1.1.4 [REP2-037], you state that <i>"The (PEI) report was also copied to HSE but this did not constitute consultation."</i> and in your response to our ExQ1.1.18 you say that <i>"Requirement 7 has been updated in the draft DCO submitted at Deadline 2 to include the Health and Safety Executive as one of the bodies that the relevant planning authorities must consent before determining an application for approval. This secures the need for the relevant local planning authorities to get input from the fire services and the Health and Safety Executive as part</i></p>	<p>The reference to 'the report' in the final sentence of the Applicant's response to ExQ1 1.1.4 was to the Outline Battery Fire Safety Management Plan (OBFSMP) [EN010106/APP/7.6] and not to the Preliminary Environmental Information Report (PEI Report). This statement, regarding the PEI Report within the response to ExQ1 1.1.4 [REP2-037] was made in error and the Applicant did seek the Health and Safety Executive (HSE)'s views on the OBFSMP, but it did not receive a response. This is separate to the requirement for the relevant county authorities to consult with the HSE prior to approving the BFSMP once consent has been granted.</p> <p>The Applicant also consulted with the HSE at the statutory consultation during the pre-application period, which included consultation on the PEI Report. The response by HSE and the regard had by the Applicant to this response are set out in the Consultation Report Appendices J-1 to J-5 [APP-030].</p>



ExQ2	Respondent	Question	Applicant's Response
		<p><i>of approving the final plan prior to commencement of Work No. 2.”</i></p> <ul style="list-style-type: none"> <li>Please explain why HSE was not consulted on the PEI report.</li> </ul>	
Q2.1.7		Not for the Applicant	
Q2.1.8	The Applicant	<p><b>BESS: consultation</b></p> <p>In your response to our ExQ1.1.40 [REP2-037], we note that along with the fire services and relevant planning authorities, <i>“Health and Safety Executive (HSE) was also consulted. It is anticipated that these same stakeholders will be consulted during the preparation of the Battery Fire Safety Management Plan (BFSMP).”</i></p> <ul style="list-style-type: none"> <li>What was the outcome of the consultation with HSE?</li> <li>Please confirm that the fire services, the relevant planning authorities and HSE will continue to be consulted both in respect of the evolving outline Battery Fire Safety Management Plan and the Battery Fire Safety Management Plan, and any advice and requirements incorporated into both these documents.</li> </ul>	<p>The key stakeholders during the preparation of the Outline Battery Fire Safety Management Plan was the fire services (Cambridge Fire and Rescue Service and Suffolk Fire and Rescue Service) and the relevant planning authorities. The Health and Safety Executive (HSE) was issued the OBFSMP for consultation on the 26 August 2021, with follow up emails requesting an update and a meeting on the 31 August 2021 and 30 September 2021, respectively. The HSE did not respond to requests prior to submission.</p> <p>The Applicant can confirm that the fire services and the relevant planning authorities will continue to be consulted both in respect of the evolving outline Battery Fire Safety Management Plan and the Battery Fire Safety Management Plan. The Applicant will have regard to any advice and requirements received. The Applicant will continue to try to engage with the HSE.</p> <p>It is also noted that requirement 7 of the DCO has been amended so that the local planning authorities must consult with the HSE before approving any application to approve the Battery Fire Safety Management Plan.</p>
Q2.1.9	The Applicant	<p><b>BESS: consultation</b></p> <p>In your response to our ExQ1.1.40 [REP2-037], you say in respect of further consultations with the fire services, relevant planning authorities and HSE that <i>“These further consultations have not been carried out and are not necessary for this stage; it is</i></p>	<p>The Applicant's response to question 1.1.40 is referring to the consultation to be undertaken for the Battery Fire Safety Management Plan which is to take place once a detailed design has occurred. It is not appropriate to undertake that consultation until a detailed design has been prepared post consent. Early consultation with the relevant planning authorities, fire rescue services,</p>

ExQ2	Respondent	Question	Applicant's Response
		<p><i>intended these would happen during detailed design."</i></p> <ul style="list-style-type: none"> <li>• Please explain why this is the case.</li> <li>• Would it be worthwhile to undertake early consultation to assist with the post consent discharge of Requirement 7?</li> </ul>	<p>environment agency and HSE will take place. It will be in the Applicant's interest to do this to ensure that requirement 7 is discharged in a timely manner.</p>
<p><b>Q2.1.10</b></p>	<p>The Applicant</p>	<p><b>BESS: fire risk</b> In your response to our ExQ1.1.4 [REP2-037], you state that <i>"The fire risk is not anticipated to generate a "likely significant effect"."</i> Please explain how you have arrived at that conclusion.</p>	<p>An assessment of Major Accidents and Disasters has been undertaken as part of the EIA and reported in Chapter 16: Other Environmental Topics [REP2-024]. Section 16.5.23 to 16.5.39 provides the assessment of the risk of a BESS fire and outlines the appropriate mitigation control measures with the OBFSMP [REP2-024]. With the implementation of the mitigation and control measures the risk of fire is minimised. In addition, in the unlikely case that there is a fire, it would be contained and controlled.</p> <p>The Residual Effect section 15.5.43 of chapter 16 states, that Given the nature of accidents and disasters, there is the potential for significant effects if an event does occur, however, the assessment has concluded that the risk of such events occurring is low for the Scheme and significant effects on the environment are therefore not anticipated.</p>
<p><b>Q2.1.11</b></p>	<p>The Applicant</p>	<p><b>BESS: emergency response plan (ERP)</b> In your response to our ExQ1.1.17 [REP2-037], you state that <i>"Once the battery system is selected for Sunnica an Emergency Response Plan (ERP) will be drafted with firefighters to decide on water tank refilling protocols / requirements based upon a risk assessment from UL 9540A unit or installation level test data and / or 3rd party fire &amp; explosion test data for the BESS system. There is an expectation that water tanks will be refilled as soon as it is practical and safe to do so."</i></p>	<p>The OBFSMP has been updated and submitted at Deadline 5 to include a new section on ERP and include the requirements identified. Please see section 5.2 of the updated OBFSMP.</p> <p>The test data will be additionally reviewed by an independent Fire Protection Engineer specialising in BESS projects. The data together with the independent review will be shared with the FRS and used to draft the final ERP.</p> <p>The final water tank capacity will be designed to hold enough water to deal with an incident based upon a range of fire and explosion test data and independent review. The location and design of the water tanks will allow for refilling by first responders, if needed.</p>

ExQ2	Respondent	Question	Applicant's Response
		<p>Please confirm that the ERP so drafted will</p> <ul style="list-style-type: none"> <li>• utilise independent test data; and</li> <li>• form part of the BFSMP;</li> </ul> <p>and that water tanks will be refilled as soon as reasonably practicable.</p>	
<p><b>Q2.1.12</b></p>	<p>The Applicant</p>	<p><b>BESS: emergency response plan (ERP)</b> In item 2 in Table 3 of the revised OBFSMP [REP2-032] you state that <i>“The Battery Fire Safety Management Plan will include an emergency response plan during the detailed design stage of the Scheme based on local, national and international input and best practice recommendations ....”</i> but what these are and what will be included in the ERP does not appear to be explicitly stated.</p> <p>Please update the OBFSMP to</p> <ul style="list-style-type: none"> <li>• list and explain what specific items will be included in the ERP and why;</li> <li>• confirm that the BFSMP will include the ERP and be entirely in accordance with the OBFSMP</li> </ul>	<p>The OBFSMP has been updated and submitted at Deadline 5 [EN010106/APP/7.6] to include a new section on ERP and include the requirements identified. Please see section 5.2 of the updated OBFSMP.</p>
<p><b>Q2.1.13</b></p>		<p>Not for the Applicant</p>	
<p><b>Q2.1.14</b></p>	<p>The Applicant</p>	<p><b>BESS: unplanned atmospheric emissions</b> We note your response to our ExQ1.1.53 [REP2-037] regarding testing of BESS of up to 100kWh storage capacity, ie 100kW power for 1 hour or 50kW over 2 hours. You do not state the maximum storage capacity</p>	<p>At the time of undertaking the Unplanned Atmospheric Emissions from BESS assessment [APP-124], there were few publicly available documents on the results of a BESS fire. As such the best available information was used to undertake a preliminary risk assessment. As stated, a detailed consequence modelling exercise will be undertaken at the detailed design stage in order to ensure there are no significant off-site impacts from an unplanned fire.</p>

ExQ2	Respondent	Question	Applicant's Response
		<p>of the BESS but given that this application is under PA2008 the minimum power generation is 50MW and so likely minimum storage capacity is 50MWh (1 hour storage) or 100MWh (2 hour storage). This appears to be around 1000 times the storage capacity of the BESS tested by the US Fire Protection Research Foundation (FPRF).</p> <ul style="list-style-type: none"> <li>• Has any testing has been undertaken in respect of BESS of the size which will be needed for the Sunnica Energy Farm?</li> <li>• If so, what are the findings in respect of unplanned atmospheric emissions, and how do they compare with the findings from the FRPF?</li> <li>• If not, please explain why the Secretary of State should have confidence in the application of the FPRF findings to the Sunnica Energy Farm.</li> </ul>	<p>It should be reiterated that the Unplanned Atmosphere Emissions from BESS assessment [APP-124] was based upon the assessment undertaken for the Cleve Hill Solar Farm DCO, which has been through the DCO process and been granted development consent, thus setting a precedent for the level of information required at this stage. The Applicant is committed to delivering a detailed consequence modelling study, and this is secured through the outline Battery Fire Safety Management Plan which itself is secured by Requirement 7 of the DCO.</p> <p>In response to the specific questions, the 100KWh Tesla data used in the FPRF report, which informs the Unplanned Atmosphere Emissions from BESS assessment [APP-124] is still one of the largest freely available tests which could be used for the Scheme. The Tesla Powerpack system is equivalent in size to a battery rack, and is therefore representative of a single-rack fire. Current model BESS containers commonly range from 700KWh to around 4MWh, much smaller than the capacities mentioned in the question. It should be reiterated that due to the safety precautions within BESS systems, a fire would not occur through the entire BESS enclosure simultaneously, and therefore the emissions at any one time would only be from a single rack (the assessment has assumed five racks to be conservative). As such the total size of the BESS is not relevant</p> <p>UL 9540A testing quantifies gas production at both cell and module level for BESS, and this data has been traditionally used for BESS consequence modelling. UL 9540A unit (battery rack) and installation level (BESS container) fire and explosion testing provides additional data to produce site specific consequence modelling.</p> <p>The new UL 9540A fire and explosion testing and NFPA 855 (2023) recommended 3rd party fire and explosion testing are integrating free burn tests for full BESS containers where real time data can be captured during outdoor tests and the emission range data can be accurately quantified. The systems considered for the Scheme will have undergone this level of testing prior to commencement.</p> <p>Test data and full consequence modelling is highly proprietary and only released under NDAs for individual BESS projects at the detailed design stage. Best practice consequence modelling usually covers five levels of thermal runaway event:</p> <ul style="list-style-type: none"> <li>• single cell failure;</li> <li>• single module failure;</li> </ul>

ExQ2	Respondent	Question	Applicant's Response
			<ul style="list-style-type: none"> <li>• full battery rack failure;</li> <li>• full BESS container failure without suppression (free burn); and</li> <li>• full BESS container failure with suppression / emergency response.</li> </ul> <p>Given the above information, the Secretary of State should have confidence that full consequence modelling will provide the necessary details to ensure the Scheme is safe.</p>
<p><b>Q2.1.15</b></p>	<p>The Applicant</p>	<p><b>BESS: unplanned atmospheric emissions</b> We note your response to our ExQ1.1.57 [REP2-037] regarding emissions, in which you state that <i>“detailed design will ensure that the outcomes predicted in Appendix 16D are not exceeded.”</i> Please explain how this will be achieved.</p>	<p>The detailed consequence modelling that will be undertaken once the detailed design for the Scheme is determined will allow an accurate model of the emissions in the case of a fire at the BESS. The model results will be compared to the risk assessment provided in the Unplanned Atmospheric Emissions assessment [APP-124]. The Consequence modelling will assess a wider range of pollutants than the Unplanned Atmospheric Emissions assessment [APP-124], however the key point is that there should be no adverse impacts outside of the site boundary (refer to the Applicant's response to ExQ1.1.51 and 1.1.61 [REP2-037] for further discussion). Consequence modelling is secured by the outline Battery Fire Safety Management Plan submitted at this Deadline 5.</p>
<p><b>Q2.1.16</b></p>	<p>The Applicant</p>	<p><b>Human health, safety and welfare</b> We note from your response to our ExQ1.1.19 [REP2-037] that <i>“Local residents are situated outside the life safety critical zones but their specific health and safety protocols and incident communication requirements will also be factored into Emergency Response Planning (ERP).”</i> and that <i>“Welfare” has been added to the revised version of the Outline Battery Fire Safety Management Plan ...”</i>. However, human health, safety and welfare do not appear to have been included in Table 6 of the revised OBFSMP [REP2-032] along with the other requirements. Please</p>	<p>The Applicant added 'welfare into section 3.1.1 and 3.1.3 of the OBSFMP [REP2-032], life safety and property protection were already included within these two paragraphs.</p> <p>The OBFSMP has been updated and submitted at Deadline 5 to include more detail on the ERP with the minimum level of detail to be provided in the plans shown in 5.2.3 and 5.2.4. These measures will allow emergency responders to respond to a potential incident within the Scheme effectively and communicate with local residents as necessary.</p> <p>The site integrator and operators will be ultimately responsible for drafting and implementing the specific H&amp;S policy for the Scheme, as they will define the standard operating procedures (SOPs) for the detailed BESS and site design.</p> <p>The integrators and operators will take into account the NFPA 855 (2023) guidance which defines five BESS hazard categories. The hazards are assessed under both normal operating conditions and emergency / abnormal conditions:</p> <ol style="list-style-type: none"> <li>1. Fire &amp; explosion hazards</li> </ol>

ExQ2	Respondent	Question	Applicant's Response
		<ul style="list-style-type: none"> <li>• explain what the “specific health and safety protocols” are;</li> <li>• state where and how human health, safety and welfare have been added to the OBFSMP as requirements;</li> <li>• explain what the salient and relevant human health, safety and welfare factors are; and</li> <li>• explain what additional requirements you propose in respect of human health, safety and welfare, and how you will include them in emergency response planning.</li> </ul>	<p>2. Chemical hazards</p> <p>3. Electrical hazards</p> <p>4. Stored / stranded energy hazards</p> <p>5. Physical hazards</p> <p>These hazards cannot be quantified until the detailed design stage and will be implemented into the BFSMP / ERP, therefore the specific H&amp;S protocols cannot be defined at this stage. Hazard Mitigation Analysis, Fire Risk Analysis and Explosion Risk Analysis plus detailed consequence modelling are a key part of this assessment process.</p> <p>However, NFPA 855 (2023) does define some basic operation H&amp;S protocols for all BESS systems:</p> <ul style="list-style-type: none"> <li>• Potential debris impact radius is defined as 100 feet / 30.5 metres i.e. this is a typical explosion risk safe exclusion zone radius as modelling and previous BESS incidents typically show 25 metres to be maximum radius.</li> <li>• Automatic building evacuation area is defined as 200 feet / 61 metres from the affected BESS container.</li> <li>• BESS hazards for first responders and site operatives once a fire has started, depend on the BESS design but are typically defined as: fire, explosion, chemical hazards, carbon monoxide, carbon dioxide, hydrocarbon gases, and hydrogen. Full PPE should be worn and operations should not generally be conducted within blast exclusion zones.</li> </ul> <p>The only potential hazard for local residents are Chemical Hazards i.e. toxic gas emissions from a fire or explosion. Once consequence modelling has been conducted at the detailed design stage then incident communication and action protocols for local residents would be agreed with the LRF / FRS. This may include "shut doors and windows" and the FRS / Environmental Health would be monitoring air quality at the closest residential areas to ensure air quality is at safe levels.</p> <p>Additional H&amp;S requirements that will be covered in ERP and included within the updated OBFSMP include:</p>



ExQ2	Respondent	Question	Applicant's Response
			<ul style="list-style-type: none"> <li>• Details of emergency resources, including fire detection and suppression systems and equipment; gas detection; emergency eye-wash and shower facilities; spill containment systems and equipment; emergency warning systems; communication systems; personal protective equipment; first aid.</li> <li>• A list of dangerous goods stored on site.</li> <li>• Site evacuation procedures.</li> <li>• Emergency procedures for all credible hazards and risks, including medical, building, infrastructure and vehicle fire, wildfires, impacts on local respondents, impacts on transport infrastructure</li> <li>• The operator should develop a post-incident recovery plan that addresses the potential for reignition of ESS and de-energizing the system, as well as removal and disposal of damaged equipment.</li> </ul>
<p><b>Q2.1.17</b></p>	<p>The Applicant</p>	<p><b>BESS: final version of OBFSMP</b> If not already included as explicit requirements in the OBFSMP [REP2-032], please either confirm that the following will be included or alternatively explain why they are not included:</p> <ul style="list-style-type: none"> <li>• an independent expert to interpret test results from UL9540A</li> <li>• testing of ingress protection of containers/cabinets per UL9540A; and</li> <li>• use of data analytics to warn of maintenance or failure of components and/or systems.</li> </ul>	<p>The OBFSMP has been updated and submitted at Deadline 5. An independent Fire Protection Engineer specialising in BESS will review all UL 9540A test results and any additional fire and explosion test data which has been provided. This is now made clear in the OBFSMP.</p> <p>Ingress protection (IP rating) of BESS systems and containers is not part of the UL 9540A test process. The environment section of UL 9540 Test covers ingress ratings (moisture ingress, salt fog, IP dust &amp; water testing) and the environment section of IEC 62933-5-2 Test covers ingress ratings (moisture ingress, marine environment, IP dust &amp; water testing). BESS container standards are validated through 3rd party report on manufacturing plants / processes i.e. DNV, TUV SUD, Intertek, etc. Therefore the OBFSMP does not require testing of ingress protection per UL9540A as UL9540A does not require this; however Table 4 of the OBSMP includes both UL 9450 and IEC62933-5-2.</p> <p>NFPA 855 (2023) has now stipulated minimum control and monitoring requirements for EMS / BMS, the OBFSM already commits to this. IEEE has 3 new standards in development that will cover BESS data analytics, electrical controls and maintenance / replacement of battery systems. Once the new</p>



ExQ2	Respondent	Question	Applicant's Response
			standards have been published and reviewed the OBFSMP will be amended to include new standards.
<b>Q2.1.18</b>	The Applicant	<p><b>BESS: health and safety related consents</b></p> <p>We note your response to our ExQ1.1.2 [REP2-037], where we asked about health and safety related consents, and in particular your reference to compliance with the Health and Safety at Work etc Act 1974. Please explain</p> <ul style="list-style-type: none"> <li>• how the health and safety related consents you will apply for will take due account of the health, safety and welfare of the public as well as employers and employees; and</li> <li>• when such consents will be applied for in order to comply with relevant legislation</li> </ul>	<p>The Health and Safety at Work Act 1974 impose general duties of care for employees casual workers, self-employed workers, clients, visitor and the general public. As outline in the response the ExQ1.1.2 the Applicant and its contractor(s) will comply with all applicable regulatory requirements under Health and Safety at Work etc. Act 1974 legislation and associated regulations, including the duty of care for the health, safety and welfare of the public.</p> <p>The site integrator and operators for the Scheme will be ultimately responsible for drafting and implementing the specific H&amp;S policy for the Scheme, as they will define the standard operating procedures (SOPs) for the detailed Scheme design. Therefore, it is not practical at this stage to outline in detail a programme of these consents at this stage; however, the Applicant can confirm that the consents will be applied for at an appropriate stage, post a decision on the DCO, to comply with the relevant legislation.</p>
<b>Q2.1.19</b>	The Applicant	<p><b>Emergency response and evacuation planning</b></p> <p>Please explain what emergency response and evacuation events, other than BESS related events, may occur, and where the planned response to such events is documented and secured in the DCO.</p>	<p>An assessment of Major Accidents and Disasters has been undertaken as part of the EIA and reported in Chapter 16: Other Environmental Topics <b>[REP2-024]</b>. The assessment did not identify any other major accidents or disasters that are likely to occur as a result of the Scheme; and therefore no other emergency response or evacuation events are considered likely.</p> <p>Major Accidents and Disasters identified within EIA will be addressed through appropriate risk assessments that will be undertaken prior to construction, operation and decommissioning pursuant to the CEMP, OEMP and DEMP, respectively. These assessments, and the implementation of response measures considered necessary and appropriate based on these assessments, are required under the Framework CEMP <b>[EN010106/APP/6.2]</b>, OEMP <b>[EN010106/APP/6.2]</b> and DEMP <b>[EN010106/APP/6.2]</b>. The final management plans must be in substantial accordance with the framework plans. The submission and approval of the final CEMP, OEMP and DEMP is secured in Requirements 14, 15 and 22 of the draft DCO, respectively.</p>

ExQ2	Respondent	Question	Applicant's Response
			<p>In addition, the Applicant will be required to adhere to all relevant Health and Safety Legislation and will develop policies and procedures for the Scheme which do not form part of the EIA at this stage. For example, during construction and decommissioning the Construction (Design and Management) Regulations (2015) will be adhered to, which address all health and safety aspects of the Scheme. The Principal Contractor will have a duty under Clause 30 Emergency Procedures and Clause 31 Emergency Routes and Exits, to provide:</p> <ul style="list-style-type: none"> <li>- <i>'...suitable and sufficient arrangements for dealing with any foreseeable emergency must be made and, where necessary, implemented, and those arrangements must include procedures for any necessary evacuation of the site or any part of it.'</i>; and</li> <li>- <i>'a sufficient number of suitable emergency routes and exits must be provided to enable any person to reach a place of safety quickly in the event of danger'.</i></li> </ul> <p>Similarly, the Management of Health and Safety at Work Regulations (1999) places a duty on employers to assess and manage risks to their employees and others arising from work activities.</p>

## 4 Topic 2.2 Biodiversity and Nature Conservation (including Habitats Regulations Assessment)

ExQ2	Respondent	Question	Applicant's Response
Q2.2.1	The Applicant	<p><b>Habitats Regulations Assessment (HRA)</b> Please provide an updated report to inform an HRA to reflect the changes to the proposals for Sunnica West B and in particular the alignment and construction of the proposed cable route, including its rerouting to avoid areas of peaty soils.</p>	<p>An updated report to inform an HRA, reflecting the changes to the proposal, including the removal of Sunnica West Site B, has been submitted at Deadline 5. This includes consideration of Grid Connection Route B, which runs to the south of Chippenham Fen (Fenland SAC and Chippenham Fen Ramsar). The report to inform an HRA considers potential impacts to Chippenham Fen with respect to ground water and surface water and concludes no likely significant effects.</p>
Q2.2.2	The Applicant	<p><b>Arable flora</b> In its D4 submission, Comments on D3 and D3A submissions [REP4-137], CCC considers Field W06 and W09 of Sunnica West Site A of district and county importance for their arable flora (cf ES Appendix 8C - Terrestrial Habitats and Flora Report [APP-079]). Please comment on CCC's position that solar arrays should be removed from the field considered of county importance for arable flora (W09), and that an alternative off-site solution is required to work with farms to deliver better landscape scale management for arable flora (W09 and W06).</p>	<p>As shown in the updated Environmental Masterplans and detailed in the updated OLEMP submitted at Deadline 5, the Applicant has significantly extended the area for arable flora within W09 by allowing for a continuous undisturbed buffer around the entirety of the field. This mirrors the distribution of arable flora within the existing field margins. This retains the existing flora in its current location and secures the conditions for its presence for the lifespan of the project. As such, arable flora can be retained alongside the use of W09 for solar arrays and without the need for off-site mitigation.</p>
Q2.2.3	The Applicant	<p><b>Stone Curlew</b> Please comment on NE's statement in its post hearing submission [REP4-139] section 3, that the only area being specifically created and managed for stone curlew would be plots ECO1 and ECO2 in Sunnica East Site A, but that does not seem</p>	<p>The Applicant can confirm that ECO3 is included within the Stone-curlew offsetting habitat. The areas to provide offsetting habitat for Stone-curlew are described in the updated Stone-curlew habitat provision specification document submitted at Deadline 5. In summary, this includes the following provisions:</p> <ul style="list-style-type: none"> <li>• ECO1 - 6ha of disturbed and bare ground/short sward (i.e., nesting plots) and 34.1ha of grassland (sward height &lt;5cm). Total = 40.1ha.</li> </ul>

ExQ2	Respondent	Question	Applicant's Response
		<p>to make up the whole 108ha discussed in other documents.</p> <p>Please also clarify the total area and locations of habitat that would be specifically created and managed for stone curlew, including whether this will include ECO3.</p>	<ul style="list-style-type: none"> <li>• ECO2 - 6 ha of disturbed and bare ground/short sward (i.e., nesting plots) and 28.2 ha of grassland (sward height &lt;5cm). Total = 34.2ha</li> <li>• ECO3 (Core Stone-curlew area) - 8 ha of disturbed and bare ground/short sward (i.e., nesting plots) and 24.7 ha of grassland (sward height &lt;5cm). Total = 32.71ha.</li> <li>• Remainder of ECO3 – 18.7ha</li> </ul>
<p><b>Q2.2.4</b></p>	<p>The Applicant</p>	<p><b>Stone Curlew</b></p> <p>Will the environmental masterplan, submitted at deadline 3 [REP3-022], be updated to show any public rights of way in order to determine what impact, if any, these will have on the stone curlew offsetting habitat?</p>	<p>The Environmental Masterplan submitted at Deadline 5 shows the location of public rights of way. Further information on the management of public access will be provided at Deadline 6. Consideration of recreational disturbance is also discussed in the updated Stone-curlew habitat provision specification document submitted at Deadline 5. In summary, a number of measures have been implemented to reduce disturbance to Stone-curlew by members of the public. The creation of a circular access route around E05 will provide a focus for recreational users and along with appropriate signage will raise awareness of sensitive ecological receptors. In addition, anti-predator fencing will be erected around ECO1, ECO2 and ECO3 during the nesting season to prevent access to Stone-curlew areas when the birds are present.</p>
<p><b>Q2.2.5</b></p>	<p>Natural England</p>	<p>Stone Curlew In paragraph 5.4.4 of the Applicant's HRA report [APP-092] and in subsequent representations it is stated that Natural England (NE) had advised that the Stone Curlew within the Order limits are the same population as those in the Breckland SPA and thus land within the order limits is functionally linked to the SPA. At D2 (REP2-090), however, NE stated that: "The impact of development on stone curlew is an ongoing area of research for Natural England and, as such, our advice has changed from that previously given. We have previously advised that birds found on the application site during surveys are likely to be part of the Breckland SPA population and should be evaluated as SPA birds.</p>	<p>The Applicant considers it would be helpful to set out its understanding of the current position with Natural England on Stone-curlew:</p> <p>Following a meeting with Natural England on 9 January 2023, the Applicant was advised that Natural England's advice regarding Stone-curlew and what constitutes a functionally linked population to the Breckland SPA is likely to change in the future, based on recent research and evidence, although this is yet to be officially published. It was understood that for the purposes of this application, and particularly given the late stage of the examination process, that Natural England's advice to the ExA would be to continue to treat the population relevant to Sunnica as functionally linked to Breckland SPA and that all identified impact pathways in the Applicant's HRA would continue to apply.</p> <p>It is also the Applicant's understanding that Natural England are satisfied that there are no other impact pathways on the site or any other of its qualifying features such as woodlark and nightjar.</p>

ExQ2	Respondent	Question	Applicant's Response
		<p>However, this is no longer considered to be the case. Therefore, any offsetting of impacts to stone curlew can be considered outside of the Habitats Regulations." However, in section 5 of its written submission at Deadline 4 [REP4-139] headed 'Comments on updated Report to Inform an Appropriate Assessment', NE appears to raise the expectation that this issue should still be considered in the HRA, stating at paragraph 5.1 that: "As discussed in our previous submissions, Natural England maintains that physical displacement of stone curlew should be identified as an impact pathway during operation." • Please clarify the status of Stone Curlew within the Order limits and whether they should or should not be considered within the scope of the Habitats Regulations; and • if NE considers that the Stone Curlew population within the Order limits is not linked to the Breckland SPA, is NE satisfied that there are no other impact pathways on the site or any other of its qualifying features such as woodlark and nightjar?</p>	
Q2.2.6		Question not for Applicant.	

## 5 Topic 2.4 - Cultural Heritage and Historic Environment

ExQ2	Respondent	Question	Applicant's Response
Q2.4.1	The Applicant	<p><b>Chippenham Park RPG</b></p> <p>If the information has not been submitted at D5, could the Applicant please:</p> <ul style="list-style-type: none"> <li>• indicate on a large-scale plan where the cable route would cross The Avenue and how many trees would be removed to enable that; and</li> <li>• explain how this would impact future replanting plans (i.e. would a gap in tree cover be required above the cable corridor?).</li> </ul>	The Applicant can confirm that this information has been submitted at Deadline 5.

## 6 Topic 2.7 Landscape and Visual Effects

ExQ2	Respondent	Question	Applicant's Response																																													
Q2.7.1	The Applicant	<p><b>Landscape and ecology management plan (LEMP)</b></p> <p>Should the current iteration of the LEMP [REP3-011] provide more detail on what may happen to existing mature vegetative belts that would currently screen existing public rights of way from glint and glare?</p>	<p>The Applicant has updated the OLEMP at Deadline 5 to include further detail in paragraph 4.2.20 on the retention and management of existing vegetation within the Order limits.</p> <p>The following paragraphs refer to existing information in the Glint and Glare Assessment [APP-121] to provide clarity on the location, nature and duration of potential glint and glare impacts on PRow footpaths and bridleways in the locations that the assessment identifies that these are not geometrically impossible.</p> <p>The table below summarises the conclusions of the Glint and Glare Assessment [APP-121].</p> <table border="1"> <thead> <tr> <th>Conclusion (of G&amp;G assessment [APP-121])</th> <th>Location (G&amp;G assessment receptor location [APP-121])</th> <th>Location description (see ES Fig 12-4, Existing Public Rights of Way and Roads within the Scheme [APP-243])</th> </tr> </thead> <tbody> <tr> <td rowspan="8">No significant impacts predicted following the implementation and establishment of mitigation measures.</td> <td>30-32</td> <td>Bridleway 204/5</td> </tr> <tr> <td>96-102</td> <td>Bridleway W-585/005/0</td> </tr> <tr> <td>103-106</td> <td>PRow W-257/003/0</td> </tr> <tr> <td>109-127</td> <td>PRow W-257/003/0 &amp; W-257/010/0</td> </tr> <tr> <td>175-179</td> <td>Bridleway W-257/001/0</td> </tr> <tr> <td>206-214</td> <td>Not identified on plan. North of E05.</td> </tr> <tr> <td>215-228</td> <td>PRow W-398/030/0</td> </tr> <tr> <td>229-233</td> <td>PRow W-398/030/0</td> </tr> <tr> <td rowspan="3">No significant impacts predicted</td> <td>151-158</td> <td>U6006</td> </tr> <tr> <td>159</td> <td>U6006</td> </tr> <tr> <td>160-164</td> <td>U6006</td> </tr> <tr> <td rowspan="7">No impacts predicted</td> <td>12-29</td> <td>Bridleway 204/5</td> </tr> <tr> <td>40-47</td> <td>PRow 204/1</td> </tr> <tr> <td>56</td> <td>PRow 49/2</td> </tr> <tr> <td>107-108</td> <td>PRow W-257/003/0</td> </tr> <tr> <td>146-149</td> <td>U6006</td> </tr> <tr> <td>150</td> <td>U6006</td> </tr> <tr> <td>180-182</td> <td>Bridleway W-257/001/0</td> </tr> <tr> <td>Impacts geometrically impossible</td> <td>All other locations</td> <td></td> </tr> </tbody> </table>	Conclusion (of G&G assessment [APP-121])	Location (G&G assessment receptor location [APP-121])	Location description (see ES Fig 12-4, Existing Public Rights of Way and Roads within the Scheme [APP-243])	No significant impacts predicted following the implementation and establishment of mitigation measures.	30-32	Bridleway 204/5	96-102	Bridleway W-585/005/0	103-106	PRow W-257/003/0	109-127	PRow W-257/003/0 & W-257/010/0	175-179	Bridleway W-257/001/0	206-214	Not identified on plan. North of E05.	215-228	PRow W-398/030/0	229-233	PRow W-398/030/0	No significant impacts predicted	151-158	U6006	159	U6006	160-164	U6006	No impacts predicted	12-29	Bridleway 204/5	40-47	PRow 204/1	56	PRow 49/2	107-108	PRow W-257/003/0	146-149	U6006	150	U6006	180-182	Bridleway W-257/001/0	Impacts geometrically impossible	All other locations	
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ExQ2	Respondent	Question	Applicant's Response
			<p>Section 8.7, Public Rights of Way and Bridleway Results, of the Glint and Glare Assessment [APP-121] states the following:</p> <p><i>“The modelling has shown that solar reflections are geometrically possible towards 144 out of the 262 assessed public right of way and bridleway receptors. The considerations for determining impact significance for observers at locations along the public right of ways and bridleways where views of the reflecting panels is deemed possible are:</i></p> <ul style="list-style-type: none"> <li><i>a. The duration of effects.</i></li> <li><i>b. The intensity of potential reflections compared to common outdoor sources of glare.</i></li> <li><i>c. The relative position of the Sun and the reflection.</i></li> <li><i>d. Associated hazards caused by potential glare.</i></li> </ul> <p><i>Therefore, the following has been considered:</i></p> <ul style="list-style-type: none"> <li><i>a. Effects would last for up to approximately 20 minutes per day for a static observer (this would be a worst case of 10 minutes in the morning and 10 minutes in the afternoon/evening).</i></li> <li><i>b. It should be considered that where reflections are visible to an observer, their intensity will be comparable to reflections from still water. Reflections from solar panels are less intense than reflections from glass or steel.</i></li> <li><i>c. Reflections would generally coincide with direct sunlight, such that an observer looking towards a reflecting panel would also be looking towards the sun. Direct sunlight is significantly more intense than a reflection from a solar panel.</i></li> </ul>

ExQ2	Respondent	Question	Applicant's Response
			<p><i>d. Reflections towards an observer on a footpath do not have an associated safety hazard – the worst-case scenario would be discomfort when looking towards a reflecting panel.</i></p> <p><i>Screening in the form of existing and/or proposed vegetation will further reduce the impact by significantly blocking views of the solar panels at almost all the locations along the surrounding public rights of way and bridleways.</i></p> <p><i>Overall, the potential impact on observers using the surrounding public rights of way and horse and riders using the surrounding bridleways is assessed as low. No further mitigation is therefore required.”</i></p> <p>To expand on point a, above, Appendix J of the Glint and Glare Assessment <b>[APP-121]</b> also shows that the potential 10-minute-duration where glint and glare effects are geometrically possible would only occur only between March and October (maximum) and would only occur at either approx. 6am, approx. 6pm or both during those months. In any case, points b and c, above set out that where this occurs, the observer would have experienced a similar and more intense impact in those locations anyway by virtue of direct sunlight.</p> <p>To expand on point d in relation to equestrian users, the Applicant has engaged horse behavioural specialists regarding glint and glare (Professor Meriel Moore-Colyer - Professor of Equine Science at Royal Agricultural University and Ashley Ede - Bloodstock &amp; Horseracing specialist at Blue Furlong Consultancy). The advice received is that glint and glare are natural phenomena that horses experience in all sorts of settings. Some of these might include breaks in tree lines when galloping, reflections off adjoining water (ponds/streams), reflections off vehicle windscreens when moving along adjoining roads, reflections from greenhouses and conservatories etc. Glint and glare are also relatively 'slow' visual stimuli unlike say a near lightening flash which is more likely to spook a horse. In our opinion, the risk of a sudden flight reaction to glare would be very low. To try and stimulate a flight reaction from glare, some or all of the following conditions could provoke a horse to react:</p> <ol style="list-style-type: none"> <li>1. The glare would need to be at a reasonably close proximity to the horse (within 25 metres)</li> </ol>

ExQ2	Respondent	Question	Applicant's Response
			<p>2. The horse would need to be moving at some speed e.g. fast canter or gallop</p> <p>3. The time of day would need to be quite precise (narrow window of time) for the glare to occur at the same time the horse or horses were passing</p> <p>4. Any screening as mitigation would be compromised e.g. a sudden gap in shrub/hedge line through which glare might suddenly be sighted/glimpsed.</p> <p>The proximity of reflectors, the short duration of 'exposure' time, the time of year and day and the more common use of bridlepaths (hacking/exercise rather than 'fast-work') are all mitigating factors in addition to the prescribed mitigations already outlined e.g. shrub and tree planting where appropriate.</p> <p>Taking account of the above, glint and glare would: have a small impact on PRow footpath and bridleway receptors; could only possibly occur for very short durations for part of the year; would not introduce a hazard for equestrian users; and is sufficiently mitigated. No further detail to what has been provided is required.</p> <p>Regarding glint and glare in relation to equine facilities, the only facility that the Glint and Glare Assessment [APP-121] identifies that glint and glare would be geometrically possible is Snailwell Gallops, where glint and glare is geometrically possible in the morning. As with PRow receptors 12-29, the Glint and Glare Assessment [APP-121] concludes at Section 8.10 that no impacts are predicted due to screening in the form of existing vegetation surrounding and within the Order limits. In addition, in order to provide an unbroken vegetation barrier, the Landscape and Ecology Management Plan [REP3-014] sets out that the existing vegetation will be enhanced by new planting and that a temporary fence will also be implemented between parcel W04 and Godolphin Gallops until the proposed planting has established, secured via the OLEMP. The Environmental Masterplan [REP3-022] also shows proposed planting to enhance screening to Snailwell Gallops from parcel W04.</p>
<b>Q2.7.2</b>		Question not for Applicant.	
<b>Q2.7.3</b>	The Applicant	<b>Hedgerows</b> The Outline Landscape and Ecology Management Plan [REP3-011] refers in	Detail regarding hedgerow loss, retention and creation is provided within the updated Biodiversity Net Gain report submitted at Deadline 5 but is summarised here:

ExQ2	Respondent	Question	Applicant's Response																																																																
		<p>Table 3 to the gain/ enhancement of 7.4km of hedgerow.</p> <ul style="list-style-type: none"> <li>Please provide more details of hedgerow loss, retention, enhancement and creation:</li> <li>in tabular form; and</li> <li>on a map, showing hedgerows only (on Ordnance Survey base with field boundaries and Order Limits marked) in order to aid clarity.</li> </ul>	<table border="1"> <thead> <tr> <th>Existing Hedgerow Baseline</th> <th>Retained Hedgerow</th> <th>Hedgerow Loss</th> <th>Hedgerow Creation</th> </tr> </thead> <tbody> <tr> <td>32.18 km</td> <td>29.61 km</td> <td>2.57 km</td> <td>6.93 km</td> </tr> </tbody> </table>	Existing Hedgerow Baseline	Retained Hedgerow	Hedgerow Loss	Hedgerow Creation	32.18 km	29.61 km	2.57 km	6.93 km	<p>Hedgerow loss is shown on the Landscape Masterplans, but to aid clarity further figures showing only hedgerows will be submitted at Deadline 6.</p>																																																							
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Q2.7.4	The Applicant	<p><b>Visual Impact</b> Please provide a calculation as to the total length of road frontage that will pass between or alongside solar arrays.</p>	<table border="1"> <thead> <tr> <th>Road Name</th> <th>Total Road Length (km)</th> <th>Solar within 50m</th> <th>Solar within 100m</th> <th>Solar within 150m</th> </tr> </thead> <tbody> <tr> <td colspan="5"><b>Sunnica East A</b></td> </tr> <tr> <td>Beck Road</td> <td>2.20</td> <td>Yes (North)</td> <td></td> <td></td> </tr> <tr> <td>Ferry Lane</td> <td>0.35</td> <td>Yes (West)</td> <td></td> <td></td> </tr> <tr> <td colspan="5"><b>Sunnica East B</b></td> </tr> <tr> <td>Freckenham Road</td> <td>0.95</td> <td></td> <td></td> <td>No</td> </tr> <tr> <td>Newmarket Road</td> <td>0.90</td> <td>Yes (Both directions)</td> <td></td> <td></td> </tr> <tr> <td>Golf Links Road</td> <td>1.00</td> <td>Yes (South)</td> <td></td> <td></td> </tr> <tr> <td>Elms Road</td> <td>1.10</td> <td>Yes (Both directions)</td> <td></td> <td></td> </tr> <tr> <td>U6006</td> <td>2.15</td> <td>Yes (Both directions)</td> <td></td> <td></td> </tr> <tr> <td colspan="5"><b>Sunnica West A</b></td> </tr> <tr> <td>Dane Hill Road</td> <td>0.40</td> <td></td> <td></td> <td>No</td> </tr> </tbody> </table>	Road Name	Total Road Length (km)	Solar within 50m	Solar within 100m	Solar within 150m	<b>Sunnica East A</b>					Beck Road	2.20	Yes (North)			Ferry Lane	0.35	Yes (West)			<b>Sunnica East B</b>					Freckenham Road	0.95			No	Newmarket Road	0.90	Yes (Both directions)			Golf Links Road	1.00	Yes (South)			Elms Road	1.10	Yes (Both directions)			U6006	2.15	Yes (Both directions)			<b>Sunnica West A</b>					Dane Hill Road	0.40			No				
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ExQ2	Respondent	Question	Applicant's Response				
			A11/A14	3.70	Yes (North West)		
			Newmarket Road	0.25		Yes (North West)	
			La Hogue Road A	1.25	Yes (South East)		
			Chippenham Road	0.90			No
			<b>Total</b>	<b>15.15</b>			

## 7 Topic 2.8 Noise and Vibration

ExQ2	Respondent	Question	Applicant's Response
Q2.8.1	The Applicant	<p><b>Noise affecting equestrians</b> Regarding CCC's D4 submission, Comments on the Applicant's D3 and D3A submissions [REP4-137] as to noise affecting equestrians:</p> <ul style="list-style-type: none"> <li>• how does the CEMP [REP3-015] (tracked version [REP3-016]) provide for noise levels in the vicinity of bridledways to be monitored so that any issues that arise can be addressed? and</li> <li>• will the CEMP be amended to clarify these matters, including points of contact available within the Contractor to liaise not only with the horse racing and training community but other bridledway users?</li> </ul>	<p>Table 36 of the Framework CEMP sets out the mitigation measures for the Scheme in relation to noise and vibration, including monitoring requirements.</p> <p>Noise monitoring will be undertaken throughout construction, with the location, methodology and frequency of this monitoring to be determined by the Principal Contractor (once appointed) and agreed pursuant to the consent process under Sections 60 and 61 of the Control of Pollution Act 1974 (CoPA). The CEMP will also set out a scheme for monitoring noise complaints and reporting back to the Applicant for immediate investigation and action.</p> <p>A point of contact will be set when a Principal Contractor is appointed to carry out construction work. Details of the point of contact will be provided in the Section 61 CoPA application and any resulting consent documentation.</p>

## 9 Topic 2.9 Socio-Economics and Land Use

ExQ2	Respondent	Question	Applicant's Response
<p><b>Q2.9.1</b></p>	<p>The Applicant</p>	<p><b>Agricultural survey</b> With reference to the D4 submission of A G Wright and Sons [REP4-045] and appendices, the D4 submission from Dr Anne Noble [REP4-077] and from Lucy Frazer MP [REP4-110] and letter from Patrick Stephenson (Agricultural Expert engaged by SNTS) at D4 [REP4-121]:</p> <ul style="list-style-type: none"> <li>• please explain how you have responded to the proposal in relation to Sunnica East Site A and other parcels of agricultural land for them to be resurveyed; and</li> <li>• please provide a reasoned justification for your response.</li> </ul>	<p>Say No to Sunnica (SNTS) and their consultant Reading Agricultural Consultants (RAC) have requested an ALC resurvey. However they have not identified any deficiency in the existing ALC survey work presented to justify resurvey. In addition, the Applicant has concerns with the methodology adopted by RAC in undertaking its assessment on land adjacent to the Sites, and that fundamental difference in approach is something that cannot be overcome by resurveying the soils within the Sites. Furthermore RAC have already conducted ALC survey work that overlaps with the Sites, finding ALC Grade 4 land limited to grade by drought, and noting that the land was irrigated for high value crops such as onion. This RAC work has been presented as part of the Sunnica ALC assessment – Annex A of Appendix 12B of the Environmental Statement. The methodology for the current work presented by RAC on behalf of SNTS is inconsistent with its former assessment work, which further supports the Applicant's concerns with the methodology RAC has now adopted for the purposes of this DCO Application. An independent review of the survey work undertaken by Patrick Stephenson Limited has been undertaken and has been submitted into Examination at Deadline 5. This document concludes that there are significant data omissions in the report and in the methodological approach.</p> <p>The claims that the Sunnica ALC assessment is incorrect or deficient presented by SNTS, Dr Noble, Lucy Frazer MP and A G Wright and Sons are addressed in turn below.</p> <p><b>REP4-045</b> Wright &amp; Sons. Claims regarding land quality are based on cropping and yield. TIN049 (page 2 Criteria and Guidance) and the MAFF ALC Guidelines (page 9 Section 2 1<sup>st</sup> paragraph) are quite clear that ALC grade is defined by reference to physical characteristics. Cropping and yield has no influence on ALC Grade.</p> <p><b>REP4-121</b> SNTS &amp; Patrick Stephenson. As above, page 9 of the ALC Guidelines and page 2 of TIN049 are quite clear that ALC grade is defined by reference to physical characteristics and not by cropping or yield. The ALC assessment work undertaken by Mr Stephenson was outside of the Sites, did not record adequate soils data for making a drought limitation calculation as per the ALC Guidelines, and does not present any ALC drought calculation. Comments seeking to</p>



ExQ2	Respondent	Question	Applicant's Response
			<p>promote yield over ALC Guidelines and the failure to properly assess the ALC drought limitation suggest inexperience in ALC assessment work.</p> <p><b>REP4-110</b> Lucy Frazer MP. TIN049 directs that strategic scale mapping such as that relied upon by RAC for their desk top ALC assessment, is not appropriate for making a site specific assessment of ALC Grade. Furthermore, the RAC desktop assessment is contradicted by the results of the RAC site assessment of ALC grade that partially overlaps with the Sunnica Sites. The claim by Lucy Frazer MP that the presence of BMV is 'significantly contested' is based upon the flawed assessment work of Patrick Stephenson and the desk top work of RAC that contradicts their own previous site assessment work.</p> <p><b>REP4-077</b> Dr Anne Noble. Regarding stone presence, Dr Noble is incorrect. For the purposes of assessing drought limitation under the MAFF ALC guidelines it is necessary to take into account the presence of stones in soil layers (Appendix 4, p 41 of the MAFF ALC Guidelines) and these stones are all mineral particles coarser than the fine earth fractions of the soil, particles up to 2mm diameter. Dr Noble references 2cm but this is from page 18 of the ALC guidelines, detailing the mechanical limitation imposed by large stones in the topsoil. The stone limitation text on this page notes the relevance of all stones to a drought limitation calculation, and directs the reader to Appendix 4.</p> <p>In Section 1 of Dr Noble's submission, the attempt is again made to define ALC grade by reference to land use and yield despite noting that this is not the correct procedure. The claim that certain crops cannot be grown in shallow soils is incorrect. Potatoes are grown in artificially raised furrows and at 30cm the shallow soils at the site can accommodate root crops.</p> <p>Section 2 – there are three providers of ALC survey cover for the Sites; MAFF, RAC and Baird Soil. MAFF ALC results have not been downgraded. Rather the no longer supported upgrade has been removed, reverting that land to its original drought limitation grade. For the reasons previously explained this is appropriate and consistent with guidance. All three ALC survey providers found land within the Sites to have light and shallow soils with a significant drought limitation. They clearly concur.</p> <p>Paragraph 3.2.1 - The Sunnica ALC grading does not contradict the post 1988 ALC shown on Magic.gov.uk. It is the same grading but with the no longer supportable irrigation upgrade removed. As a courtesy, in August 2022 the Sunnica team provided Dr Noble with a photographic record of the original MAFF ALC survey field notes, demonstrating that MAFF found the land to be limited to</p>

ExQ2	Respondent	Question	Applicant's Response
			<p>grade by drought and that an allowance had been made by MAFF for irrigation. The Applicant sought advice from Natural England and their response has been clear that in such situations it is appropriate to review ALC grades with any allowance for irrigation removed.</p> <p>Paragraph 3.2.2 - TIN049 directs that the Provisional ALC plans are not suitable for site assessment of ALC grade. The Applicant does not consider it appropriate to seek to refute its own detailed ALC assessment with the out of date Provisional ALC map that is acknowledged to be unsuitable for informing site specific planning decisions.</p> <p>On mapping, the scale at which ALC grades are mapped complies with the guidance given in TIN049. All survey work by Baird Soil recorded auger point and inspection pit locations using a field GPS giving confidence in the ability to return to any location and reproduce the auger or pit investigation. For paragraphs 3.3.4 and 3.3.5, Lee Farm took longer to survey owing to the presence of a large area of outdoor pigs. All Baird Soil survey work was undertaken by Daniel Baird and as the Elms Road and Manor Farm areas are adjacent, they were surveyed as a single block. These points raised by Dr Noble in any event have no relevance to the assessment of ALC Grade.</p> <p>Section 4 – Irrigation. Dr Noble is incorrect in claiming that TIN049 makes any reference at all to irrigation. Furthermore, irrigation has been addressed in the Sunnica ES with the assessment of Farming Circumstances for each of the occupying farm businesses noting details of abstraction water licences and irrigation infrastructure.</p> <p>Submissions <b>REP4-045</b>, <b>REP4-077</b>, <b>REP4-110</b> and <b>REP4-121</b> have not substantiated any claim of deficiency in the ALC assessment presented by Sunnica. Furthermore, SNTS's own consultant RAC has previously undertaken ALC survey within the boundary of the Sites finding land limited to ALC Grade 4 by drought. The Applicant does not consider it appropriate to repeat survey work in circumstances where there is no legitimate issue raised with that work. The submissions which seek further survey work are reliant upon the assessment undertaken by RAC (as instructed by SNTS). However, as previously explained, RAC's current assessment conclusions and claims (made on behalf of SNTS and relied upon by other interested parties) are entirely contradicted and not supported by their own previous site assessment of ALC within the Sites (which previous assessment aligns with the methodology and outcomes with the survey work undertaken on the Sites by two other specialists).</p>

ExQ2	Respondent	Question	Applicant's Response
Q2.9.2	The Applicant	<p><b>Agricultural survey</b></p> <p>Please detail what response the Applicant has made to NE, in light of NE's comments at paragraph 2.2 of its D4 submissions, [REP4-139] that, where access is permitted, NE wishes to see an agricultural land classification (ALC) survey and soil management plan for all land disturbed as a result of the development, during the examination.</p>	<p>The Applicant is discussing this matter with NE. NE's wish to see survey work for the cable route corridor stems in part from Draft EN-3 paragraph 2.48.14. However, this paragraph relates to the use of ALC "to inform soil management at the construction, operation and decommissioning phases". It does not suggest that a soil survey of a cable route should take place before development consent is granted. It notes that ALC is the only approved system for grading agricultural land and that the soils data collected by it also benefits soil management planning. The relevant paragraphs of Draft EN-3 do not suggest that cable corridors need to be assessed for ALC, nor that they need to be selected based on ALC.</p> <p>The Applicant does not have access to the full cable route corridor at present, and will be unlikely to obtain access to all of this land to complete survey work within the examination. It is therefore suggested that it would be preferable to undertake a systematic soil assessment of the whole cable route as a condition of the DCO to inform the soil management plan, rather than present scattered fragments of survey cover during Examination and then having to complete the bulk of the work as a condition of the DCO.</p>
Q2.9.3	The Applicant	<p><b>Soil quality</b></p> <ul style="list-style-type: none"> <li>Does the Application provide clarity as to what impact solar panels may have on the properties of the soil where land is subject to the Proposed Development, such as carbon storage, structure and biodiversity? And</li> <li>if so please provide references to where this is explained.</li> </ul>	<p>For soils within the areas of solar panel development within the Sites, the most significant impact will be the replacement of arable land management (annual cultivation, trafficking by harvest vehicles, application of fertiliser and pesticide and exposure of bare soil surface vulnerable to erosion) with a perennial green cover for a period of 40 years. The benefits of this change in management for soil health are substantial and will not be negated by the presence of widely spaced rows of solar panel mounted above ground level. The benefits of reverting arable land to pasture are well understood. Attention has already been drawn to Defra research project SP08016 (see the Applicant's written summary of oral submissions from the Issue Specific Hearing on 8 December 2022 [REP4-032], paragraph 4.1.5(c) &amp; (d) and Appendix B). Table 1 in the summary report for the Defra project is very clear, that reverting arable land to pasture is very effective for benefit to soil organic matter and highly beneficial on environmental impact. RAC have referenced research from the Netherlands that they purport casts doubt on this benefit, but this research includes solar sites with no gaps between panels and no vegetation below panels, a solar farm design common in the Netherlands but not found in England.</p> <p>There is no plausible reason why the soil resource at a solar farm, with cultivation suspended and a year round green cover, would not experience a recovery to a</p>

ExQ2	Respondent	Question	Applicant's Response
			<p>higher equilibrium of soil organic matter than that under the prior arable management.</p> <p>The soil organic matter and wider environmental impact benefits of reverting arable land to pasture are sufficiently well established that farmers can receive a Countryside Stewardship payment of £321 per hectare per year for adopting this land management (Countryside Stewardship Grant SW7: Arable reversion to grassland with low fertiliser input).</p>
<p><b>Q2.9.4</b></p>	<p>The Applicant</p>	<p><b>ALC assessment</b> With reference to the D4 submission of A G Wright and Sons Appendix 15, [REP4-063] please comment on the critique of the Applicant's ALC assessment with reference to Lee Farm.</p>	<p>Agricultural Land Classification (ALC) is the only approved system for assessing the quality of agricultural land in planning in England and Wales. The cover letter of A G Wright &amp; Sons submission (<b>REP4-045 to REP4-063</b>) begins by claiming <i>"Irrespective of the land grading methodology used, Freckenham Estate in partnership with Lee Farm was highly productive to a level which is not reflected by the current low grading provided by Daniel Baird in the Sunnica Application."</i> Assessment of ALC grade that relies upon land use and yield, and not the ALC methodology, should be rejected.</p>
<p><b>Q2.9.5</b></p>	<p>The Applicant</p>	<p><b>Food security</b> If not submitted previously to the examination please submit the CPRE report Building on our Food Security, July 2022.</p>	<p>The CPRE Report has been provided in Appendix F, however the Applicant does not endorse it or consider it is an important and relevant consideration for the following reasons. The CPRE report's claims on extent of BMV land lost to development should be treated with caution. The extent of ALC Grade 1 and 2 land is based upon the Provisional ALC maps which TIN049 directs are not suitable for a site specific assessment. The derivation of the extent of Grade 3a land is not fully explained. Post 1988 ALC survey work by MAFF is available on Magic.gov.uk but the extent of this land is limited, mostly to proposed housing and employment allocation sites. With the MAFF loss of independent call in powers in the 1990s, the ALC survey work of MAFF declined dramatically, with its successor (Natural England) not routinely undertaking ALC survey work. If the extent of post 1988 ALC cover available on Magic.gov.uk were sufficient for CPRE assessment then there would not be a need to rely on the Provisional ALC plans.</p> <p>An assessment of BMV land lost to development could be an informative study, and could collect data on ALC grades of land lost from the planning applications. This however would be a labour intensive study. CPRE instead rely on a poorly explained extrapolation limiting the value of their study.</p> <p>It should also be noted that whereas agricultural land is lost to permanent built development, agricultural land is not lost to a temporary consent for solar panels.</p>

ExQ2	Respondent	Question	Applicant's Response
Q2.9.6	The Applicant	<p><b>Agricultural land productivity</b> In light of the information presented in the D4 submissions of A G Wright and Sons [REP4-045 to REP4- 063] how has the Applicant assessed if at all whether agricultural land within the Order Limits is highly productive irrespective of land grading methodology?</p>	<p>Agricultural Land Classification (ALC) is the only approved system for assessing the quality of agricultural land in planning in England and Wales. The ALC methodology purposefully assumes a good standard of agricultural management regardless of the actual standard observed at a site. This is to remove any incentive for a landowner to deliberately manage land poorly to facilitate obtaining planning consent.</p> <p>The ALC assessment of the land within the Sites (including work by MAFF and RAC) determines grade limitations according to the physical characteristics of the land. The current agricultural land use, or intensity of use, does not affect the ALC grade. Accordingly, the Applicant has not made a separate assessment of productivity.</p>
Q2.9.7	The Applicant	<p><b>Agricultural land productivity</b> Is the productive value of agricultural land an important and relevant consideration for the ExA to take into account, whether or not it is classified as best and most versatile (BMV) land?</p>	<p>The productive value of agricultural land is not an important and relevant consideration for the ExA or Secretary of State to take into account when considering the Application for the Proposed Scheme.</p> <p>The policy in the Energy NPSs, draft Energy NPSs and NPPF set out considerations and tests relevant to the decision of the Secretary of State with respect to land use. In the context of agricultural land and soils, the policy is that an applicant should seek to minimise impacts on best and most versatile land (except where inconsistent with other sustainability considerations) and should seek to minimise impacts on soil quality. These are considerations based on the Agricultural Land Classification grading of the soil, which therefore inform whether the land is best and most versatile. Considerations such as yield, productivity or current use of the agricultural land are not relevant to the decision before the ExA and Secretary of State; the policy requirement simply requires the decision maker to understand the impacts on best and most versatile land and identifies the ALC grade as the means for establishing these impacts.</p>
Q2.9.8	The Applicant	<p><b>Crop yields</b> Does the Applicant agree with CCC in its D4 submission Written Summary of Oral Case for OFH1 [REP4- 079] that Grade 3 soils in Cambridgeshire can produce a greater range and yield of crops than Grade 3 soils in other areas of the country, albeit using irrigation, and if not why not?</p>	<p>The Applicant does not agree with the claim made by CCC that Grade 3 land in Cambridgeshire is superior to Grade 3 land in other counties. CCC give no evidence to support this claim and many other counties could make a similar claim, for instance Kent.</p> <p>The ALC methodology produces a simple index of agricultural land quality and versatility. There are many criteria for limiting overall land grade including flood risk and climate. There is no system of ranking land within an ALC Grade according to the type of limitation placing the land in that grade. Similarly, we do not elevate land limited to a grade by a single limiting factor over land limited to</p>

ExQ2	Respondent	Question	Applicant's Response
			the same grade by two or more limiting factors. There is certainly no hierarchy of counties or regions within any ALC Grade. This claim by CCC should be disregarded.
<b>Q2.9.9</b>	The Applicant	<b>Public rights of way (PRoW)</b> In light of concerns raised by the authorities with responsibilities for the PRoW network within their respective boundaries and others about visual and noise impacts of aspects of the scheme on users of public rights of way, please would the Applicant explain how these concerns have been taken into account, whether the Applicant will now treat NMUs as sensitive receptors in the Environmental Assessment, and indicate what permanent enhancement to the PRoW network will be offered in mitigation therefor?	The Applicant has treated NMUs as sensitive receptors in all relevant assessments within the Environmental Statement, including Landscape and Visual Amenity [ <b>APP-044</b> ], Socio-economics and Use [ <b>APP-044</b> ], Transport and Access [ <b>APP-045</b> ], Air Quality [ <b>APP-046</b> ] and Human Health [ <b>APP-047</b> ]. Where required, mitigation measures have been proposed and are secured through the Framework CTMP and TP, Framework CEMP, Framework OEMP and Framework DEMP. NMUs along PRoW are not considered noise sensitive receptors within the assessment undertaken within the Environmental Statement, as by their nature they are transient and their exposure to noise will only be temporary; therefore, there are unlikely to be effects on health or quality of life. However, control measures have been provided within the Framework CEMP, Framework OEMP and Framework DEMP to control noise exposure during the lifetime of the Scheme [ <b>EN010106/APP/6.2</b> ]. These measures cover Best Practicable Means and are designed to minimise noise during the construction, operation and decommissioning phases along PRoWs. In terms of permanent enhancements to PRoW network, the Applicant is in discussions with the Councils concerning entering into a s106 agreement, which would provide funds to the councils to create new, or to improve existing, PRoWs in the vicinity of the Scheme.
<b>Q2.9.10</b>		Question not for Applicant.	
<b>Q2.9.11</b>		Question not for Applicant	
<b>Q2.9.12</b>		Question not for Applicant	
<b>Q2.9.13</b>	The Applicant	<b>PRoW plans</b> Please amend the Access & Rights of Way Plans (1) to include permissive paths, showing clearly their connectivity and position within the wider routes network, and (2) to show clearly whether or not any of the roads affected by the proposed	(1) The Applicant has submitted relevant updated sheets of the Access and Rights of Way Plans at Deadline 5 for the purpose of the Changes Application submitted at the same time. To the extent that any permissive paths are on those relevant sheets, they are presented on the plans. The Applicant intends to produce and submit to the Examination in due course a consolidated set of Access and Rights of Way Plans, pending acceptance of the application and further discussion with the LPAs regarding the detail of the



ExQ2	Respondent	Question	Applicant's Response
		development are maintainable at the public expense.	permissive paths. For the avoidance of doubt, the Applicant confirms that it will be adding permissive paths to these plans. (2) The relevant roads which are maintainable at the public expense are listed in column (2) of Schedule 5 to the dDCO.
<b>Q2.9.14</b>	The Applicant	<b>PRoW improvement plan</b> How would the adverse impact of the scheme on local communities be mitigated by addressing the requirements of the Council's statutory Rights of Way Improvement Plan as discussed with CCC at ISH3 and referred to in CCC D4 submission [REP4-137]?	Whilst the Applicant has not identified any adverse impacts from the Scheme during the operational phase in relation to PRoWs, the Applicant recognises the comments made by interested parties and the Councils in their representations and at the hearings in December 2022. The Applicant is therefore willing to enter into a s106 agreement with Cambridgeshire County Council and Suffolk County Council to create new and/or improve existing PRoWs within the vicinity of the Scheme, following the Hearing in December 2022. A HoT on this aspect has been issued to both councils in January 2023 for further discussion.
<b>Q2.9.15</b>	The Applicant	<b>Public access strategy</b> How would the Applicant's proposals contribute to a more extensive public access strategy said to be integral to the Stone Curlew mitigation, given its potential to help manage the recreational pressure by diverting people away from Beck Road and providing an alternative to the existing PRoW that goes along EC02?	The Application is proposing a circular route around the solar panels in parcel E05 and running parallel with Beck Road within Sunnica East Site A. It will also provide opportunities for shorter circular routes and will connect with a new space to the west of E05 where a memorial to the B50 crash site will be constructed and therefore provide a destination for walkers. This permissive path would be pushed back from Beck Road and therefore users of the path would have less interaction with ECO2 and ECO1. The permissive path will connect to W-257 which runs parallel to ECO2; however, predator fencing is proposed within ECO2 which will separate the users of W-257 and the stone curlew areas within ECO2.
<b>Q2.9.16</b>	The Applicant	<b>Permissive access</b> The permissive access offered in Cambridgeshire at the E05 site does not appear to connect to any existing PRoW. Therefore, what proposals does the Applicant have that would increase and/or enhance walking opportunities from Isleham?	As outlined in the response to Q2.9.14 the Applicant is willing to enter into a s106 agreement with Cambridgeshire County Council and Suffolk County Council to create new and/or improve existing PRoWs within the vicinity of the Scheme. A HoT on this aspect has been issued to both councils in January 2023 for further discussion.
<b>Q2.9.17</b>	The Applicant	Permissive path within E05 <ul style="list-style-type: none"> <li>If E05 is retained, does the Applicant agree that the proposed</li> </ul>	The permissive route within E05 has been re-designed to provide a circular route around the solar panels in parcel E05 and running parallel with Beck Road within Sunnica East Site A. This will provide a connection between Isleham to the west



ExQ2	Respondent	Question	Applicant's Response
		<p>open space and car park facilities (referred to by CCC in its comments on D3 and D3A submissions [REP4-137]) would improve amenity access and please explain your reasoning?</p> <ul style="list-style-type: none"> <li>How would this proposal and the suggested pushing back of the permissive path in the southern section of E05 be incorporated as part of the proposed development?</li> </ul>	<p>and Freckenham to the south via bridleway W-257. It will also provide opportunities for shorter circular routes and will connect with a new space to the west of E05 where a memorial to the B50 crash site will be constructed. This is shown on the updated Environmental Master Plans which are being submitted at Deadline 5 [8.47]. Car parking spaces have not been provided as part of the design; however, the area can be accessed from Freckenham via the W-257 and the Councils will have opportunities through the s106 agreement to provide walking access to the area from Isleham. This will encourage walking from the two villages and surrounding area rather than driving and parking at this location. The proposal to push the permissive path back from Beck Road has been integrated into the Environmental Master Plan and described within the OLEMP both of which are being re-submitted at Deadline 5.</p>
<p><b>Q2.9.18</b></p>	<p>The Applicant</p>	<p><b>Fordham walking group concerns</b> Fordham Cambs Walking Group (FCWG) has over 200 active members, including members from neighbouring villages. They have expressed strong concerns regarding the inadequacy of mitigation relating to permissive routes (see FPC submission at D4). Please confirm that the discussions between the Applicant and CCC relating to permissive routes will include the FCWG as requested in that organisation's D4 post hearing submission [REP4-097].</p>	<p>The Permissive Routes proposed within the Scheme are not mitigation, i.e. they have not been proposed to mitigate an impact, but rather have been proposed as an enhancement to the existing Public Rights of Way Network within the vicinity of the Scheme. The Applicant does not consider that FCWG should form part of the discussions on the permissive paths within the Scheme, as from the Applicant's perspective, apart from the changes to the permissive path around E05 in Sunnica East Site A, no other changes to Permissive Paths are feasible or practicable. However, the Applicant is willing to enter into a s106 agreement with Cambridgeshire County Council to create new and/or improve existing PRoWs within the vicinity of the Scheme, and the Applicant would suggest that FCWG are a consultee to that process.</p>
<p><b>Q2.9.19</b></p>	<p>The Applicant</p>	<p><b>Soils</b> With regard to NE's comments at D4 at paragraph 4.3 [REP4-139] that, should soil mixing still be proposed, it has concerns over how this will affect the ability to restore the site to its baseline ALC grade at the end of the development, how specifically would the Applicant propose to overcome these concerns?</p>	<p>The Applicant proposes to achieve the nutrient poor soil conditions by the alternative means of stripping the majority of the ploughed topsoil and storing this material as with from areas of access track. The remaining soil profile for the ecological enhancement area will only have a small volume of topsoil with elevated phosphate content, reducing the phosphate availability to the benefit of a biodiverse plant mix. This will avoid the need to bring in (or source from the site) chalk rubble material. Should the landowner return the biodiverse area to arable production post decommissioning the volume of topsoil stripped can be returned. If the biodiverse area is to be retained, the conserved topsoil can be applied thinly to a larger area of similar topsoil type as informed by the Soil Management Plan</p>

ExQ2	Respondent	Question	Applicant's Response
			as required in Table 3-7 of both the Framework CEMP and Framework DEMP [EN010106/APP/6.2].

## 10 Topic 2.10 Traffic, Transport and Highway Safety

ExQ2	Respondent	Question	Applicant's Response
<b>Q2.10.1</b>	The Applicant	<p><b>General</b></p> <p>As to CCC's D4 Submission - Comments on the Applicant's D3 and D3A submissions [REP4-137], could additional plans be provided that more clearly define the boundary without obscuring other required elements?</p>	<p>The Applicant held a productive meeting with the local highways authorities (LHAs) on 25/11/22, in which this matter was discussed. Within the pack of site access drawings presented in Annex C of the Framework Construction Traffic Management Plan and Travel Plan [REP3A-010 to REP3A-0234] submitted at Deadline 3A, the Order limits were shown on plans to demonstrate that all proposed works are within those limits. In the majority of cases, the package of plans for each access also included plans without the Order limits shown.</p> <p>The Examining Authority will be aware that the thickness of the red line denoting the Order limits replicates the scale that it has been submitted to the DCO examination, which ensured legibility at the scale to which it is viewed. This necessarily made the line itself 3m in width. As has been confirmed to the LHAs, and as the Examining Authority will be aware, the outer edge of the line represents the outer edge of the Order limits, i.e. on the line is within the Order limits.</p> <p>To aid interpretation, the Applicant can update the package of drawings such that the Order limits is represented as a thin line showing the outer edge of the Order limits, rather than the full extent of the line. This can be submitted as an update to Annex C of the Framework Construction Traffic Management Plan and Travel Plan at a future Deadline.</p>
<b>Q2.10.2</b>	The Applicant	<p><b>General</b></p> <p>We note your response to our ExQ1.10.1 and ExQ1.10.2 [REP2-037]. Please confirm that the updated Framework Construction Traffic Management Plan and Travel Plan documents you refer to, namely [AS300] and [AS-301] are the same as Appendix Q [AS-278, AS-279] to your change request [AS-243].</p>	<p>The Applicant confirms that this is correct. <b>AS-278</b> and <b>AS-279</b> show tracked changes. <b>AS-300</b> and <b>AS-301</b> are "clean" versions of the same document.</p>
<b>Q2.10.3</b>	The Applicant	<p><b>Access to Sunnica East Site B</b></p> <p>We note your response to our ExQ1.10.23 [REP2-037] relating to access to Sunnica East Site B primary access C on Elms</p>	<p>The site access drawings which are provided at Annex C of the most recent iteration of the Framework Construction Traffic Management Plan and Travel Plan [REP3A-010 to REP3A-024] the Applicant submitted at Deadline 3A, identify sections of Elms Road to be widened up to 7.2m width. This width is</p>

ExQ2	Respondent	Question	Applicant's Response
		<p>Road, and that <i>“construction staff can pass one another entering and egressing the site access.”</i></p> <p>Please advise whether all vehicles expected to use this access can pass each other safely, whether on Elms Road or at the access itself, and how this will be achieved.</p>	<p>based on swept path analysis of two HGVs passing one another. The swept path analysis of the two 16.5m articulated HGVs passing one another takes into consideration the passing of wingmirrors, local characteristics such as the verge, vegetation, trees and telephone poles as well as on site observations when identifying the locations of highway works along Elms Road.</p> <p>In SCC's response <b>[REP4-141]</b> to the updated Framework Construction Traffic Management Plan and Travel Plan <b>[REP3A-004]</b> the Applicant submitted at Deadline 3A, SCC confirms that it accepts in principle the provision of passing bays on Elms Road subject to the resolution of some matters of detail.</p> <p>As set out in paragraph 7.2.2 of the Framework Construction Traffic Management Plan and Travel Plan <b>[REP3A-004]</b> a Delivery Management System will be implemented to control bookings of HGV deliveries from the start of the construction period. This will be used to effectively plan all HGV deliveries in accordance with the construction programme, regulate the flow of HGVs via timed delivery slots and monitor compliance of HGV routing. The purpose of this is to avoid movements occurring simultaneously.</p> <p>Data on forecast peak HGV usage of accesses during construction is included in Table 6-3 of the Transport Assessment <b>[APP-117]</b>. At the peak of the construction phase, the largest number of HGV movements at the Elms Road access (Sunnica East Site B: Site Access A) will be 20 per day. This represents a low number, meaning that simultaneous movements at relevant access junctions are both unlikely and easy to manage. In practice, in the highly unlikely event that two vehicles reach the access at the same time, the outbound vehicle will wait in the site for the inbound vehicle to pass. This means that the inbound vehicle will not need to wait in the highway. The internal layout of the site will be designed to ensure that there is sufficient space for the exiting vehicle to wait within the site and allow the entering vehicle to pass without obstruction. Sufficient forward visibility will be provided to enable this to take place safely. This is set out in paragraph 7.2.19 of the F-CTMP/TP.</p> <p>This answer has demonstrated that HGVs will be able to pass each other safely along Elms Road through the provision of widening to provide passing places. Management measures will be in place to avoid HGVs meeting at access points and needing to pass each other at the access itself. The Applicant has noted the LHAs' concern on whether such measures will be effective. Whilst the Applicant has confidence that the measures will be effective, further internal layout measures and protocols have been added to the F-CTMP/TP to ensure that</p>

ExQ2	Respondent	Question	Applicant's Response
			vehicles would not obstruct the public highway in the unlikely event that an inbound and outbound vehicle reach an access simultaneously.
<b>Q2.10.4</b>	The Applicant	<p><b>Abnormal load access to Burwell National Grid substation</b></p> <p>We note your response to our ExQ1.10.29 and 1.10.31 [REP2-037] relating to abnormal load access to the Burwell substation, and note that you have <i>“reviewed information provided on the National Grid website in reference to the new transformer being transported from Ipswich docks to the National Grid Burwell substation, details are provided below.”</i> and that you say with reference to the route used by National Grid that <i>“The confirmation that National Grid delivered a new transformer from Ipswich Docks to the National Grid Burwell substation provides reassurances that the AIL can be accommodated on the local highway network.”</i></p> <p>However, other than brief reference to A142, B1102, High Street, Reach Road and Weirs Drove, no details appear to have been provided.</p> <p>Please provide details of the route taken for the delivery of a new transformer from Ipswich docks to the National Grid Burwell substation on 6 June 2021, and explain</p> <ul style="list-style-type: none"> <li>• Whether you considered the route used by National Grid;</li> <li>• if the route used by National Grid was not considered, why it was not considered;</li> </ul>	<p>The Applicant can confirm that the route successfully used by National Grid to deliver a new transformer from Ipswich Docks to the Burwell substation is the same route as assessed by the Applicant. This is the route set out in Section 5.8 of the Framework Construction Traffic Management Plan and Travel Plan [REP3A-004]. Thus this route was considered and adopted, and does not differ from the route used by National Grid.</p> <p>Notwithstanding this, the Applicant's Proposed Change Report 2, being submitted at Deadline 5 removes Burwell National Grid Substation Extension Option 2 from the Scheme. Thus there will no longer be a requirement for AIL transport to the Burwell substation.</p>

ExQ2	Respondent	Question	Applicant's Response										
		<ul style="list-style-type: none"> <li>if the route used by National Grid was considered, why it was not adopted in preference to the route described in section 5.8 of Appendix 13C Framework Construction Traffic Management Plan [REP3A-004];</li> <li>how and why your proposed route differs from the route used by National Grid.</li> </ul>											
Q2.10.5		Question not for Applicant.											
Q2.10.6		Question not for Applicant.											
Q2.10.7		Question not for Applicant.											
Q2.10.8		Question not for Applicant.											
Q2.10.9	The Applicant	<p><b>Forecast peak HGV movements on local roads</b></p> <p>We note your response to our ExQ1.10.93 and ExQ1.10.94 [REP2-037] relating to HGV on La Hogue Road, where it is stated that <i>"the majority of HGVs currently using La Hogue Road are 7.5T to 18T lorries."</i></p> <p>The table showing the numbers of vehicles for each HGV weight classification does not also show the vehicle configurations so it is not possible to correlate your description of your proposed 4-axle and 5-axle vehicles with the weight classification in the table.</p> <p>Please confirm that your proposed 4-axle and 5-axle vehicles are all of weight classification 36T or 40T.</p>	<p>The table below summarises the maximum gross weight of vehicles for the different vehicle types, i.e. number of axles. This is taken from the Department for Transport's "A Simplified Guide to Lorry Types and Weights" published in October 2003.</p> <p>(<a href="https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/211948/simplified-guide-to-lorry-types-and-weights.pdf">https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/211948/simplified-guide-to-lorry-types-and-weights.pdf</a>).</p> <table border="1"> <thead> <tr> <th>HGV Maximum Gross Weight</th> <th>Vehicle Configuration</th> </tr> </thead> <tbody> <tr> <td>7.5T-18T</td> <td>2 Axle Rigid</td> </tr> <tr> <td>25T</td> <td>3 Axle Rigid</td> </tr> <tr> <td>26T</td> <td>3 Axle Artic.</td> </tr> <tr> <td>30T</td> <td>4 Axle Rigid</td> </tr> </tbody> </table>	HGV Maximum Gross Weight	Vehicle Configuration	7.5T-18T	2 Axle Rigid	25T	3 Axle Rigid	26T	3 Axle Artic.	30T	4 Axle Rigid
HGV Maximum Gross Weight	Vehicle Configuration												
7.5T-18T	2 Axle Rigid												
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ExQ2	Respondent	Question	Applicant's Response				
			<table border="1" data-bbox="1075 252 2072 383"> <tr> <td data-bbox="1075 252 1579 316">36T</td> <td data-bbox="1579 252 2072 316">4 Axle Artic.</td> </tr> <tr> <td data-bbox="1075 316 1579 383">40T</td> <td data-bbox="1579 316 2072 383">5+ Axle Artic.</td> </tr> </table> <p data-bbox="1075 391 2072 582">The 7.5T to 18T lorries currently using La Hogue Road, referenced in our response to ExQ1.10.93 and ExQ1.10.94 [REP2-037] are 2 axle rigid vehicles in line with the government guidance. The Applicant confirms that its proposed 4-axle and 5 axle vehicles will have a maximum gross weight of 36T or 40T, as per the table above. It should be noted that this is a maximum weight allowed for the vehicle, rather than the proposed weight of each vehicle and load.</p>	36T	4 Axle Artic.	40T	5+ Axle Artic.
36T	4 Axle Artic.						
40T	5+ Axle Artic.						
<p data-bbox="141 598 266 630"><b>Q2.10.10</b></p>	<p data-bbox="288 598 477 630">The Applicant</p>	<p data-bbox="499 598 1041 662"><b>Forecast peak HGV movements on local roads</b></p> <p data-bbox="499 670 1041 1021">We note your response to our ExQ1.10.93 and ExQ1.10.94 [REP2-037] relating to HGV on La Hogue Road, where it is stated that <i>“the majority of HGVs currently using La Hogue Road are 7.5T to 18T lorries.”</i> with a total of 32 HGV currently using La Hogue Road per day: only three of these are classed as 36T or 40T, whereas there will be a peak of 48 HGV of 36T or 40T during the construction of the proposed development.</p> <p data-bbox="499 1029 1041 1189">This appears to represent an increase in HGV overall (ie all classes) of 150% and an increase of 1600% in the classes of HGV proposed when compared with current use of La Hogue Road by HGV.</p> <p data-bbox="499 1197 1041 1412">Table 6-3 of the Transport Assessment [APP-117] appears to indicate that numbers of HGV overall will be above or close to double existing HGV flows for months 2 to 7, ie over a six month period, and with the exception of months 20, 23 and 24 will be more than 30% higher than existing flows</p>	<p data-bbox="1075 598 2083 885">As set out in Table 6-3 of the Transport Assessment, a maximum of 48 HGVs per day are forecast to use La Hogue Road at the peak (month 3) of the construction period. Assuming a 10-hour daily construction delivery window, excluding the two highway peak hours, (i.e. 0700-0800, 0900-1700, 1800-1900 hours) with movements split equally across the hours (noting that there will be more arrivals at the start of the day and departures towards the end), construction vehicles associated with the Scheme would be anticipating an average of circa five HGV trips per hour to the La Hogue Road access and circa 10 HGV movements per hour during peak period of activity.</p> <p data-bbox="1075 893 2083 1181">Over the whole 24 month construction period, an average of 18 HGVs are forecast to use La Hogue Road daily. Assuming a 10-hour daily construction delivery window, excluding the two highway peak hours, with movements split equally across the hours (noting that there will be more arrivals at the start of the day and departures towards the end), it would be anticipated an average of circa two HGV trips per hour to the La Hogue Road access and circa four HGV movements per hour on average during the construction period. This is in line with the existing level of HGV traffic that was observed on La Hogue Road in July 2022.</p> <p data-bbox="1075 1189 2083 1412">The air quality objective that is relevant to the assessment of the Scheme is the annual mean objective of 40 µg/m<sup>3</sup>. This means that high traffic volumes that are temporary (&lt; 6 months) are unlikely to have significant impacts across an annual mean. However, the air quality modelling was undertaken assuming the highest month of traffic for an entire year (2023), and as such is a worst case assessment. The results at receptor R08 on La Hogue road show that the NO<sub>2</sub> concentration is predicted to increase by 0.1 µg/m<sup>3</sup>. This is of negligible</p>				



ExQ2	Respondent	Question	Applicant's Response
		<p>throughout the 24 month construction period.</p> <p>Please explain</p> <ul style="list-style-type: none"> <li>• why these increases in both volume and size of HGV over the planned 24 month construction period are not considered to have a significant impact on La Hogue Road, particularly from air quality, human health, safety and amenity viewpoints as well as from an operational viewpoint; and</li> <li>• with reference to your response to our ExQ1.10.102 [REP2-037], why a longer construction period is not the worst case bearing in mind economic, social, mental health and wellbeing issues, particularly in respect of uncertainty and anxiety related to the increased length of the construction period.</li> </ul>	<p>significance, especially considering that total concentrations are very low – at between 9 and 10 µg/m<sup>3</sup></p> <p>Due to the low baseline HGV traffic on La Hogue Road, the percentage increase in HGVs forecast on this road is accepted to be high, however, the absolute increase in HGVs, as referenced above, on a c.450m section of La Hogue Road is relatively limited. With regard to Human Health, this level of increase in HGVs would not result in changes to the assessment conclusions in regard to both noise and air quality, which are assessed based on peak construction traffic flows. Consequently, there would be no change to the neutral impacts on Human Health concluded in respect of construction traffic presented in Table 15-6 of the Human Health chapter of the Environmental Statement [APP-047].</p> <p>Furthermore, the Framework Construction Traffic Management Plan and Travel Plan [REP3A-004] at Annex C identifies proposed highway works for La Hogue Road to provide passing bays to allow two HGVs to pass each other safely, mitigating potential highways impact, particularly with regards to safety and driver delay.</p> <p>ExQ1.10.102 [REP2-037] sets out the reasons why a longer construction period would not represent a worst case, predominantly because the impact would be lower in magnitude. As set out in Table 6-3 of the Transport Assessment [APP-117], the peak of construction activities at La Hogue Road will be between Months 1 and 7, with a maximum daily number of 48 HGVs. This is the peak assessed within the ES. Outside of this period, there would be a maximum of 19 daily HGVs for the remainder of the construction period, with most months forecast to have 10-14 daily HGVs. This means that, outside of months 1-7, the peak number of HGV deliveries will be 1-2 per hour, with between 2-4 HGV movements per hour along a 450m section of La Hogue Road. This would occur for 15 months, between Month 8 and Month 22. This is a very limited impact, particularly considering the improvements proposed to La Hogue Road, and an extension of duration of the construction phase would not result in this impact being significant in EIA terms.</p> <p>In terms of air quality, a shorter construction period would require higher daily volumes of HGV, and as such would lead to higher concentrations of pollutants, and hence is the worst case.</p> <p>Regarding businesses, landowners and farmers, a reduction in the volume of additional daily staff/HGV traffic in the local area caused by the construction of the Scheme would reduce the impact on driver delay. There would be lower</p>

ExQ2	Respondent	Question	Applicant's Response
			<p>levels of congestion on the local highway network which will result in less queuing and delay for general traffic. The volume of increase in traffic levels arising from the Scheme are in themselves not considered likely to result in any impact on the operations of businesses, nevertheless the longer construction period would improve certainty in terms of customer access and deliveries such as to minimise impacts on business and the economy whilst construction activities are taking place.</p> <p>In respect of social, mental health and wellbeing issues, Chapter 15 of the ES considered the effects of the Scheme on several relevant determinants including Accessibility, Social Cohesion and Access to Healthcare Services and Other Social Infrastructure. In terms of Accessibility and Social Cohesion, a longer construction period would improve the ability for individuals to cross roads, therefore making NMUs travelling in the local area feel safer whilst further limiting the potential for any physical barriers and severance caused by this. This would reduce any resulting potential to hinder social interaction which could otherwise adversely affect wellbeing and mental health. In regard to Access to Healthcare Services and Other Social Infrastructure, the potential for any such health impact arising from residents accessing healthcare services either on foot or by vehicle would also be lessened by any reduction in traffic travelling to/from the sites. This would also apply to local residents accessing any other items of social infrastructure, such as schools and community facilities that are critical to wellbeing and maintaining good mental health, and consequently contribute to social cohesion. In respect of businesses, landowners and farmers, a reduction in the volume of additional daily staff/HGV traffic in the local area caused by the construction of the Scheme would reduce the impact on driver delay and there would be lower levels of congestion on the local highway network which will result in less queuing and delay for general traffic. Volumes of increases in traffic are in themselves not considered likely to result in any impact on the operations of businesses, nevertheless the longer construction period would improve certainty in terms of customer access and deliveries such as to minimise impacts on business and the economy whilst construction activities are taking place.</p>
<b>Q2.10.11</b>		Question not for Applicant.	
<b>Q2.10.12</b>	The Applicant	<b>Updated Framework CTMP and TP [REP3A-004]</b>	The Applicant confirms that the 'Version' on the cover sheet is correct as it states Rev 03. Status should be Deadline 3A, rather than Deadline 3. The reference to Rev 02 in 1.4.1 should be updated to Rev 03.

ExQ2	Respondent	Question	Applicant's Response
		<p>With reference to paragraph 1.4.1 of the updated Framework CTMP and TP, and to avoid confusion, please confirm that</p> <ul style="list-style-type: none"> <li>• this updated version is Rev 03;</li> <li>• the cover sheet status column should read "Deadline 3A" for Rev 03 dated 28 November 2022;</li> <li>• the cover sheet in the tracked version should show Rev 03 as tracked; and</li> <li>• the version submitted at Deadline 3 (Rev 02) [REP3-013] is now superseded.</li> </ul>	<p>However, please note that the Framework Construction Traffic Management Plan and Travel Plan has been updated and submitted at Deadline 5 – this revised version relates to the Changes Application submitted at the same deadline. Rev 02 submitted at Deadline 3 is now superseded.</p>
<p><b>Q2.10.13</b></p>	<p>The Applicant</p>	<p><b>Updated Framework CTMP and TP [REP3A-004]: crane and AIL routes</b></p> <p>In paragraph 5.4.11, you state that <i>"the routes included within the review do not necessarily mean they will be the final routes of the AILs. It will be the hauliers' responsibility to finalise the AIL route in coordination with the relevant highway authorities and any other relevant authority ..."</i></p> <ul style="list-style-type: none"> <li>• If the actual route chosen to each site access is different from the route identified here, how do you know that the worst case has been assessed and reported in the ES? and</li> <li>• Why have you not already engaged the necessary expertise to establish a feasible route to each access, as suggested by the local authorities in</li> </ul>	<p>The Applicant has outlined in its Consents and Agreements Position Statement [REP2-016] that it is not seeking to incorporate within the DCO any consents required for the transport of abnormal loads, and that these will be sought outside the scope of the development consent order. This reflects that at this stage of the project it is impractical to precisely determine the full extent and timing of such movements. In this regard it is important to recognise that National Planning Policy (see in particular section 4.10 of NPS EN-1 in relation to pollution control) encourages decision makers to consider that other legal regimes will operate effectively.</p> <p>The Applicant has undertaken a reasonable worst-case assessment. It has been demonstrated that there is a safe and deliverable route from the Strategic Road Network to the relevant site accesses for AILs. It has identified constraints and potential temporary measures, such as temporary relocation of road signs, required to ensure that the routes are feasible and seeks the powers within the draft DCO to implement those measures. The reason for this is that the national ports, which are likely to be used for the purpose of transporting AILs, are inherently well-connected to the Strategic Road Network, and that the network is generally suitable for their movements. The assessment undertaken has demonstrated the existence of a safe and deliverable route from the Strategic Road Network to the relevant site accesses.</p> <p>It is the Applicant's intention that the routes assessed will be the ones that are used. The haulier's role, as set out in paragraph 5.4.11 of the Framework</p>

ExQ2	Respondent	Question	Applicant's Response
		<p>their joint response to your response to our ExQ1.10.6 [REP3A-049]?</p>	<p>Construction Traffic Management Plan and Travel Plan [REP3A-004] submitted at Deadline 3A is to finalise the details of the delivery. The starting point for this will be the routes where the feasibility of the delivery has been established. However, it is considered beneficial to allow the haulier, at the time the delivery is made, to be able to propose alterations to the route where there would be a benefit to doing so. Any such route would need to be agreed with the relevant Highways Authority and any other relevant authority (e.g. the police).</p> <p>It should be noted that to the extent that any further works are required to facilitate an alternative route(s) which are not authorised by the DCO would have to be carried out in accordance with the conventional planning regime and highways law. However, the likelihood of this being required is low and it would not reflect an impediment to the delivery of the Scheme because the Applicant has demonstrated a deliverable route and the associate powers to secure it. Based on national level experience, it would be uncommon for a haulier to be engaged at this stage in the Scheme. Notwithstanding this, in order to progress the matter, the Applicant agrees to engage the services of a haulier in order to inform ongoing discussions with the LHAs. This is something which has been discussed with the local highway authorities.</p>
Q2.10.14		Question not for Applicant.	
Q2.10.15	The Applicant	<p>Updated Framework CTMP and TP [REP3A-004]: site accesses</p> <p>In paragraph 5.11.3, you refer to <i>“the proposed relocation of the Golf Links Road site access to Newmarket Road located between the A11 and Golf Links Road ...”</i>. Please confirm that our understanding is correct and that</p> <ul style="list-style-type: none"> <li>• the Golf Links Road site access is to Sunnica East Site B and is site access J;</li> <li>• the proposed move is to site access I; and</li> <li>• site access J will nevertheless remain open but during the</li> </ul>	<p>The Applicant confirms that this understanding is correct.</p> <p>The discussion with SCC referred to in paragraph 5.11.3 of the Framework Construction Traffic Management Plan and Travel Plan [REP3A-004] occurred prior to the finalisation of the Application and the aforementioned relocation of the site access on Golf Links Road to Newmarket Road was incorporated into the Scheme which is currently being examined. For the avoidance of doubt, no change is proposed to the use of either Site Access J or Site Access I from what has been submitted to the Examination. Paragraph 5.11.3 is helpful information as it highlights the collaborative engagement that the Applicant undertook with the highways authorities prior to submission of the Application, and explains why a Stage 1 RSA was undertaken specifically for Site Access I.</p>

ExQ2	Respondent	Question	Applicant's Response
		operational phase only, at which point site access I will be closed.	
Q2.10.16	The Applicant	<p><b>Updated Framework CTMP and TP [REP3A-004]: construction staff vehicle numbers</b></p> <p>In paragraph 7.2.38 you state that <i>“it is proposed to establish a daily vehicle cap at this level, which is 640 staff vehicles for Sunnica East, 598 staff vehicles for West and 1,074 staff vehicles across the scheme.”</i></p> <ul style="list-style-type: none"> <li>• How will these caps translate into actual vehicle movements and times on the local roads nearby, particularly Elms Road and La Hogue Road?</li> <li>• How will the vehicle movements compare as a percentage of the existing peak hour flows on these roads? And</li> <li>• In paragraph 7.4.6 line 6, should reference be to paragraph 7.2.38?</li> </ul>	<p>The vehicle numbers referenced in paragraph 7.2.38 are those which would result from a sensitivity test where a car occupancy of 1.3 was achieved, rather than a car occupancy of 1.5, which has been assessed within the Traffic and Transport Chapter of the Environmental Statement [APP-117]. This exercise was presented in the Transportation Technical Note submitted at Deadline 2 [REP2-041]. The exercise also concluded that there would not be any significant environmental effects resulting from a worst case scenario car occupancy of 1.3.</p> <p>The LHAs have since stated that they welcome the provision of a cap on vehicle numbers. However, they have concerns that a cap equivalent to 1.3 car occupancy would not result in sufficient onus on the Applicant to maximise sustainable transport opportunities, and have therefore requested that the cap is set at a level equivalent to 1.5 car occupancy. The Applicant's position throughout has been that a 1.5 car occupancy is both achievable and robust, and the Applicant has extensively evidenced this through the Transportation Technical Note. The Applicant is therefore prepared to amend the vehicle cap proposed as requested. This will be incorporated in an updated Framework Construction Traffic Management Plan and Travel Plan submitted at Deadline 5. The vehicle cap proposed, set at a level equivalent to a 1.5 car occupancy, will therefore be the same level as the maximum vehicle numbers assessed within the Traffic and Transport Chapter of the Environmental Statement [APP-117]. Therefore the actual vehicle movements and times on the local roads nearby, Elms Road and La Hogue Road, and percentage comparisons with baseline traffic flows, will be as presented in the ES.</p> <p>The reference in paragraph 7.4.6 line 6, should be to paragraph 7.2.38. This has been incorporated in an updated Framework Construction Traffic Management Plan and Travel Plan submitted at Deadline 5.</p>

## 11 Topic 2.11 Water Resources, Flood Risk and Drainage

ExQ2	Respondent	Question	Applicant's Response
Q2.11.1	The Applicant	<p><b>Sustainable Drainage Systems</b></p> <p>The Applicant is requested to provide clear detail in its next iteration of SoCGs with CCC and SCC as to exactly what is agreed and not agreed related to the detail of the proposed Sustainable Drainage Systems features of the Proposed Development</p>	<p>Within the Deadline 4 submission of the Joint Local Planning Authority Statement of Common Ground (SoCG) [REP4-015], the following position regarding Sustainable Drainage Systems (SuDS) was agreed with the local authorities:</p> <p><i>“Within the Flood Risk Assessment Part 1 Rev 1 [AS-007] the infiltration SuDS techniques, swales and basins, will be designed to mimic existing drainage conditions and accommodate the 1 in 100 year return period storm event plus a 40% increase allowance for climate change. The strategy has been assessed on the averages for QSE values, based on generally accepted experience that the average value is likely to be closer to the detailed design values. The maximum QSE volume is not a requirement to meet for design but a guide for establishing an outline drainage assessment to guide initial design parameters, which this is suitable to use for the outline strategy. The availability of land for attenuation is not a significant constraint, if additional attenuation is required, it would be provided within the site boundary.”</i></p> <p>Within the relevant Written Representations [REP2-246], SCC noted that the implementation of high quality SuDS measures can be decided in the post-consent phase of the Scheme through requirements. CCC has also taken the same view.</p> <p>As such, all positions regarding SuDS are agreed – this will be set out clearly in the next iteration of the Joint Local Planning Authority SoCG to be submitted at Deadline 6.</p>

# Appendix A - Extracts of DCO Decisions and Recommendation Reports



## Appendix A: Extracts of DCO Decisions and Recommendation Reports referred to in Q2.0.2 and Q2.0.5

### Little Crow Solar Park: Secretary of State's Decision Letter, 5 April 2022

**Paragraph 4.50**, regarding consideration of agricultural land impacts, including the temporary nature and reversibility of the proposed development

4.50. The majority of the agricultural land that would be used is Grade 3b, which does not constitute BMVL, although 36.6ha would be Grade 3a (which is BMVL) [ER 4.10.37]. This would be affected for the 35 year lifetime of the proposed Development and then be returned to agricultural use, and the ExA considered this did not amount to a permanent loss of farmland [ER 4.10.38]. The ExA agreed the proposed Development's impact on agricultural land would be short term, reversible, local in extent, and of negligible significance during the construction and decommissioning phases, and medium term, reversible, local in extent and of negligible significance during the operational phase with a moderate beneficial effect for the quality of the soils because intensive cropping would be replaced by the growing of grass [ER 4.10.39]. The 36.6ha of BMVL taken out of arable farming in relative terms would not have a significant effect on agricultural productivity in North Lincolnshire and there would be no unacceptable conflict with extant national and local policy and guidance, and the emerging policy in paragraph 2.48.13 of draft EN-3 [ER 4.10.40]. The ExA acknowledged a conflict with policy RD2 of the North Lincolnshire Local Plan, but noted that the policy is inconsistent with the NPPF and accorded very little weight to the conflict [ER 4.10.41]. The Secretary of State agrees with the ExA's approach to this issue.

**Paragraph 4.66**, concerning the reversibility of landscape impacts

4.66. The character within the Order Limits would be entirely changed from agriculture to quasi-industrial for the 35 years of the proposed Development's lifetime, but would then be reversed by the decommissioning which is secured through Requirement 4 of the Order [ER 4.11.59].

**Paragraph 4.75**, conclusion on landscape and visual effects paragraphs 4.54-4.74

4.75. The Secretary of State agrees with these conclusions.

### Cleve Hill Solar Park: Examining Authority's Report of Findings and Conclusions, 28 February 2020

**Paragraph 6.5.42**, concerning the reversibility of landscape impacts

#### **Permanence**

6.5.42. In reaching a judgement, NPS EN-1 at 5.9.16 tells us that we should consider whether any adverse impact on the landscape is temporary and capable of being reversed in a reasonable timescale. In this case, we have taken the view that all of the adverse landscape and visual impacts are fully reversible and would be removed on full decommissioning in accordance with the agreed outline Decommissioning and Restoration Plan [APP-206], which is secured through Requirement 17. The timescale for this would be a maximum of 40 years if the Medway Estuary and Swale Strategy (MEASS) managed retreat proposals are brought forward in the expected timescale but are not fixed otherwise.

Paragraph 6.6.1, concerning conclusions on landscape and visual matters

## **6.6. CONCLUSIONS**

6.6.1. Taking all relevant representations and policies into account, we conclude:

- there would be no significant effects on any AONBs;
- there would be major and significant adverse landscape effects on a local plan Area of High Landscape Value with the extent largely confined to the immediate area of the Proposed Development;
- landscape character, scenic value, recreational value, perceptual aspects, landscape quality and condition, rarity, representativeness and associations would all be adversely affected in the area local to the Proposed Development;
- two residential properties would experience major and significant long-term impacts on some views, as would users of two PRoWs locally, including the Saxon Shore Way, a long-distance footpath;
- while the Proposed Development Site is extensive, changes to views away from the immediate area would be reduced by the visual containment of the solar arrays within the site and, from elevated viewpoints further way, the effect of distance, topography and the visual context;
- iconic views from the Saxon Shore Way across The Swale towards the Isle of Sheppey and the Thames Estuary would not be directly affected, but walkers would nevertheless be aware of the Proposed Development behind them and the atmosphere and sense of isolation would be affected;
- the design of the Proposed Development has evolved to reduce landscape and visual impacts through bringing its boundaries back to the lower-lying ground and increasing buffers to some sensitive receptors;
- some limited and appropriate mitigation planting is proposed, but a more extensive scheme would in itself cause adverse landscape and visual impacts in the open, expansive landscape;
- the electrical compounds and associated flood protection bund would be in an appropriate location at the foot of Cleve Hill;
- all of the adverse effects would be reversible on decommissioning;
- NPS EN-1 accepts that virtually all nationally significant energy infrastructure projects will have effects on landscape, and we do not believe any reduction in scale would be merited considering the economies of scale that are required to ensure viability; and
- taking account of the predicted significant adverse effects, and in the context of relevant policy in NPS EN-1, we consider that the adverse landscape and visual impacts weigh against the Proposed Development. In light of the above, we consider this to be a factor of moderate weight in the overall planning balance which we undertake in Chapter 10.



## **Appendix B - Appeal decisions referred to by answer to Q2.0.2**



# Appeal Decision

Site visit made on 22 June 2022

**by Tamsin Law BSc MSc MRTPI**

**an Inspector appointed by the Secretary of State**

**Decision date: 16<sup>th</sup> August 2022**

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**Appeal Ref: APP/C3430/W/22/3292837**

**Land West of Wolverhampton West Primary Substation, South Staffordshire Railway Walk, Wolverhampton, WV4 4XX**

- The appeal is made under section 78 of the Town and Country Planning Act 1990 against a refusal to grant planning permission.
  - The appeal is made by Balance Power Projects Ltd against the decision of South Staffordshire District Council.
  - The application Ref 21/00440/FUL, dated 23 April 2021, was refused by notice dated 23 December 2021.
  - The development proposed is the construction, management and operations of a battery based electrical storage scheme with associated infrastructure, together with access improvements, internal access tracks, vehicular parking, herringbone filtered drains, security measures and landscaping works.
- 

## Decision

1. The appeal is allowed and planning permission is granted for construction, management and operations of a battery based electrical storage scheme with associated infrastructure, together with access improvements, internal access tracks, vehicular parking, herringbone filtered drains, security measures and landscaping works at Land West of Wolverhampton West Primary Substation, South Staffordshire Railway Walk, Wolverhampton, WV4 4XX in accordance with the terms of the application, Ref 21/00440/FUL, dated 23 April 2021, and subject to conditions detailed in the attached schedule.

## Applications for Costs

2. An application for costs was made by Balance Power Projects Ltd against South Staffordshire Council. This application is the subject of a separate decision.

## Main Issues

3. The main issues are:
  - Whether the proposed development would be inappropriate development in the Green Belt;
  - The effect of the proposed development on the openness of the Green Belt, and;
  - Whether the harm by reason of inappropriateness, and any other harm, would be clearly outweighed by other considerations so as to amount to the very special circumstances required to justify the proposal.

## Reasons

### *Whether Inappropriate Development*

4. The Framework identifies that the fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open. It goes on to state that inappropriate development is, by definition, harmful to the Green Belt and should not be approved except in very special circumstances. The Framework further establishes that the construction of new buildings in the Green Belt should be regarded as inappropriate, subject to a number of exceptions as set out in paragraph 149.
5. Paragraph 147 sets out that, by definition, inappropriate development is harmful to the Green Belt and should not be approved except in very special circumstances. Substantial weight should be given to this harm, and very special circumstances will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm, is clearly outweighed by other considerations.
6. Policy GB1 of the South Staffordshire Local Plan (LP) broadly conforms to the general thrust of national Green Belt policy, supporting limited infilling and changes of use of land. This policy approach also conforms with the provisions of the Framework, in this regard.
7. The appeal proposal would see the introduction of a number of structures, including 28 containerised battery units, 14 inverters, 14 transformers, 2.4-metre paladin fence, welfare units and compounds, to a site that is currently an open field. Consequently, the proposed development would not fall into any of the exceptions listed in paragraph 149 of the Framework. I therefore conclude that it would be inappropriate development in the Green Belt contrary to LP Policy GB1 which covers similar matters.

### *Openness*

8. Openness is an essential characteristic of the Green Belt that has spatial as well as visual aspects. It can be considered to be the absence of buildings and development. The appeal site forms part of an equestrian paddock associated with buildings to the north of the site. It is currently devoid of any buildings or structures. As such, the introduction of the facility, and all that it would entail, would unavoidably reduce the openness of the Green Belt in both spatial and visual terms.
9. In addition to the introduction of the battery storage facility and all its associated structures into what is currently an open field, the proposal would represent encroachment of development into the countryside. This would be contrary to one of the purposes of including land within the Green Belt, as set out in paragraph 138 of the Framework.
10. Therefore, in addition to the harm arising from the fact that the development would be inappropriate, there is a degree of harm arising from the loss of openness and from being contrary to one of the purposes of including land within the Green Belt.

### *Other Considerations*

11. The proposed scheme is designed to store 50MW within the batteries and would be able to release or absorb energy from the power network.
12. The provision of low carbon energy is central to the economic, social and environmental dimensions of sustainable development set out in the Framework. There is strong national policy support, from the Government's Energy White Paper<sup>1</sup> (EWP) and National Policy Statement EN-1<sup>2</sup> (NPS), for the development of battery storage, which would aid in the storage of energy generated from renewable sources which by their nature, intermittently generate energy. Additionally, the NPS advises that storage is needed to reduce the costs of electricity and increase its reliability.
13. National Grid's Future Energy Scenarios (2021) advises that currently the energy storage capacity in the UK is 4GW and by 2050 it is anticipated that 40GW of capacity would be required in order to meet the UK's target of net zero carbon by 2050. Although the scheme is modest in size, paragraph 158 of the Framework confirms that even 'small-scale projects provide a valuable contribution to cutting greenhouse gas emissions'.
14. The policy support for renewable energy and associated development given in the Framework is caveated by the need for the impacts to be acceptable, or capable of being made so. Nevertheless, the energy storage benefit of the proposal must be accorded substantial weight.

### **Green Belt Balance**

15. The proposal would be inappropriate development in the Green Belt, which, by definition, is harmful. To this must be added further moderate harm arising from the loss of openness, and from being contrary to the purposes of including land within the Green Belt. Paragraph 148 of the Framework indicates that any harm to the Green Belt should be given substantial weight.
16. Paragraph 151 of the Framework accepts that very special circumstances will need to be demonstrated if developments are to proceed in the Green Belt. It states that very special circumstances may include the wider environmental benefits associated with increased production of energy from renewable sources. Although modest in scale, the appeal scheme would make a valuable contribution to cutting greenhouse gas emissions, by increasing the opportunity to store energy, and this also attracts substantial weight.
17. National policy advises that developments should be located where impacts are, or can be made, acceptable. I consider that the location of the proposed development, adjacent to an existing substation and agricultural buildings, together with the existing and proposed landscaping means that this would be the case here. Additionally, whilst the proposed development would be located at the site for a number of years, it is reversible and capable of being removed from the site.
18. Therefore, and in my judgement, the environmental benefits of the proposal and the fact that the impacts can be made acceptable, are sufficient to outweigh the harm to the Green Belt. Consequently, the very special

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<sup>1</sup> Energy White Paper Powering out Net Zero Future (2020)

<sup>2</sup> Draft Overarching National Policy Statement for Energy (EN-1) (2021)

circumstances necessary to justify the proposal do exist and the scheme would not conflict with LP Policy GB1 or the Framework.

### **Other Matters**

19. I have had regard to the representations made by local residents regarding the proposed development. The concerns relating to the Green Belt have been addressed above. However, they have raised a number of concerns relating to biodiversity, noise, disturbance, safety and archaeology.
20. With regards to ecology and noise, evidence in the form of an Ecological Impact Assessment and Noise Assessment were submitted with the appeal. These detail how the development would be acceptable in terms of its impact on biodiversity and nearby residents. The Council's Ecologist and Environmental Health team do not object to the proposed development. As such, I consider that, subject to the addition of conditions relating to biodiversity and noise levels and mitigation, that the proposed development would not have a harmful impact in relation to these matters.
21. With regards to disturbance during construction works, a Construction Traffic Management Plan has been submitted with the appeal. Additionally, a condition has been requested limiting the hours of operation. As such, whilst there may be some disturbance to nearby residents during the construction of the proposed development, this would be limited to daytime hours. Whilst a temporary access would be provided to facilitate the construction works, this would be removed once the development is complete, and the Council's Highways Department are content with this. I see no reason to disagree with this conclusion.
22. In terms of battery safety, the appellant has provided information relating to the various standards that are required to be met for a battery storage facility. I have not been provided with evidence that would lead me to believe that such facilities would be unsafe.
23. Representations make reference to the use of the site as a WW2 Gun site. I have no evidence before me that the site is of great archaeological value. I have had regards to the comments made by the Council's Archaeologist that the site has a degree of historic environment interest, however they do not object to the proposed development. The scale of the scheme is modest, and therefore its associated impact on archaeology would be limited. As such, I have no reason to disagree with the Council's Archaeologist on this matter.

### **Conditions**

24. The Council has provided a list of conditions, which I have assessed in regard to the advice provided in the Planning Practice Guidance (PPG). The appellant has provided comments on the conditions proposed by the Council.
25. The condition regarding surface water drainage is necessary to ensure adequate drainage is provided for the proper functioning of the proposed development. Conditions relating to construction environmental management plan, noise mitigation, monitoring, hours of operation and construction traffic plan are necessary in order to ensure that the living conditions of nearby residents are safeguarded. Conditions regarding the cessation of the temporary access track is necessary in the interest of highway safety. Landscaping, lighting, tree and biodiversity conditions are necessary in order to ensure the



proposed landscaping and biodiversity mitigation is completed and maintained. I have altered the wording of some conditions in order to ensure they comply with the PPG. I have also amended the timeframes in some of the conditions in order to make them more reasonable.

26. With regards to the Council's request for a condition requiring further details of external materials, I note that no schedule is included. As such, I consider that this condition should be included. With regards to the condition relating to the temporary nature of the development and its decommissioning, I consider this to be necessary in order to return the land to its current use should the development no longer be required.
27. I do not consider it necessary to include the condition relating to the provision of a proactive maintenance schedule as this will likely vary between the different equipment at the site. Such a condition would therefore be imprecise and unreasonable.

### **Conclusion**

28. I have concluded above that, for this appeal, very special circumstances exist to justify inappropriate development in the Green Belt that would reduce openness. My findings on other matters do not lead me to reach a different conclusion. Consequently, the proposal would comply with the relevant provisions of the Framework and the development plan when considered as a whole. The appeal should therefore be allowed.

*Tamsin Law*

INSPECTOR

### **Schedule of Conditions**

1. The development to which this permission relates must be begun not later than the expiration of 3 years beginning with the date on which this permission is granted.
2. The development hereby permitted shall be carried out in accordance with the following approved plans and documents: 050-PL-WV44XX-001 (Rev B), 050-PL-WV44XX-101 (Rev B), 050-PL-WV44XX-201 Proposed Elevation - AA (Rev A), 050-PL-WV44XX-202 Proposed Elevation - BB (Rev A), 050-PL-WV44XX-201 Proposed Elevation - CC (Rev A), 050-PL-WV44XX-202 Proposed Elevation - DD (Rev A), Planning Design and Access Statement, Flood Risk and Drainage Assessment, Noise Assessment, Landscape and Visual Impact Assessment, Construction Traffic Management Plan (October 2021), Ecological Impact Assessment (October 2021), Arboricultural Implications Assessment (October 2021).
3. Within 35 years and six months following completion of construction of the development hereby permitted, within 12 months of the cessation of operational use, or within six months following a permanent cessation of construction works prior to the battery facility coming into operational use, whichever is the sooner, the batteries, transformer units, inverters, all associated structures and fencing approved shall be dismantled and removed from the site. The developer shall notify the Local Planning Authority in writing no later than five twenty-eight working days following cessation of power production. The site shall subsequently be restored in accordance with a scheme and timescale, the details of which shall be first submitted to and approved in writing by the Local Planning Authority no later than six months following the cessation of power production. (Note: for the purposes of this condition, a permanent cessation shall be taken as a period of at least 24 months where no development has been carried out to any substantial extent anywhere on the site).
4. Before the development hereby permitted is commenced, full details of facing materials to be used shall be submitted to and approved in writing by the Local Planning Authority. The development shall be carried out in accordance with the approved details and retained thereafter.
5. Before the commencement of any construction related activity on site, an Arboricultural Method Statement, providing comprehensive details of all underground service/utility runs, ground protection measures, 'No-Dig' construction types, construction methods within the Root Protection Areas of retained trees and a finalised Tree Protection Plan shall be submitted and approved in writing by the Local Planning Authority. Subsequently, all measures within the approved method statement and Tree Protection Plan shall be adhered to until all construction related activity has been completed
6. Before the development hereby permitted is commenced, a detailed landscape and planting scheme, shall be submitted to and approved in writing by the Local Planning Authority. The approved landscape and planting scheme shall thereafter be implemented within the first available planting season following the development being brought into use.

7. Before the development hereby permitted is commenced, the applicant shall install acoustic mitigation, designed specifically to mitigate the frequencies emitted by the plant and equipment. The proposed solution is to be approved by the Local Planning Authority prior to installation and once installed, shall thereafter be maintained for the life of the development.
8. Before any construction works hereby permitted are commenced, a Construction Environment Management Plan (CEMP) and Habitat Management Plan (HMP) detailing, in full, measures to protect existing habitat during construction works and the formation of new habitat to secure net gain of the site's Biodiversity Value, shall be submitted to and approved in writing by the Local Planning Authority. Within the CEMP/HMP document the following information shall be provided: Descriptions and mapping of all exclusion zones (both vehicular and for storage of materials) to be enforced during construction to avoid any unnecessary soil compaction on area to be utilised for habitat creation; Details of both species composition and abundance where planting is to occur; Proposed management prescriptions for all habitats for a period of no less than 25 years; Assurances of achievability; Timetable of delivery for all habitats; and A timetable of future ecological monitoring to ensure that all habitats achieve their proposed management condition as well as description of a feed-back mechanism by which the management prescriptions can be amended should the monitoring deem it necessary. All ecological monitoring and all recommendations for the maintenance/amendment of future management shall be submitted to and approved in writing by the Local Planning Authority. The development shall be undertaken and thereafter maintained in accordance with the approved CEMP and HMP
9. Before the commencement of any construction related activity on site, a lighting plan for the construction phase of development. shall be submitted to and approved in writing by the Local Planning Authority. All lighting should be designed in accordance with Bat Conservation Trust/ Institution of Lighting Professionals Guidance Note 08/18 Bats and artificial lighting in the UK. Submitted lighting plans should be accompanied by contour diagrams that demonstrate minimal levels of lighting on receptor habitats, including trees and hedges. The construction works shall thereafter be carried out in accordance with the approved details, with lighting removed as necessary, upon the completion of these works.
10. No building hereby permitted shall be first occupied until surface water drainage works have been implemented in accordance with details that shall first have been submitted to and approved in writing by the local planning authority. Before any details are submitted to the local planning authority an assessment shall be carried out of the potential for disposing of surface water by means of a sustainable drainage system, having regard to Defra's non-statutory technical standards for sustainable drainage systems (or any subsequent version), and the results of the assessment shall have been provided to the Local Planning Authority. Where a sustainable drainage scheme is to be provided, the submitted details shall: provide information about the design storm period and intensity, the method employed to delay and control the surface water discharged from the site and the measures taken to prevent pollution of the receiving groundwater and/or surface waters; include a timetable for its implementation; and, provide, a

management and maintenance plan for the lifetime of the development which shall include the arrangements for adoption by any public authority or statutory undertaker and any other arrangements to secure the operation of the scheme throughout its lifetime.

11. Before the commencement of any construction related activity on site, a scheme to monitor dust, noise and water quality, shall be submitted to and approved in writing by the Local Planning Authority. Development shall be carried out in accordance with the approved details and shall be complied with for the duration of the construction works
12. Prior to first operation of the development hereby permitted, a lighting plan for the operation phase of development, shall be submitted to and approved in writing by the Local Planning Authority. All lighting should be designed in accordance with Bat Conservation Trust / Institution of Lighting Professionals Guidance Note 08/18 Bats and artificial lighting in the UK. Submitted lighting plans should be accompanied by contour diagrams that demonstrates minimal levels of lighting on receptor habitats, including trees and hedges. Development shall be carried out in accordance with the approved details and retained thereafter.
13. The proposed development must be undertaken in adherence to all recommendations and methods of working detailed within the Arboricultural Impact Assessment (Barton Hyett project ref. 4255).
14. Any tree, hedge or shrub planted as part of the approved landscape and planting scheme (or replacement tree/hedge) on the site, which dies or is lost through any cause during a period of 5 years from the date of first planting shall be replaced in the next planting season with others of a similar size and species.
15. The development hereby permitted shall be carried out in accordance with the submitted Construction Traffic Management Plan dated October 2021 (reference P21- 0192/TR02).
16. The development hereby permitted shall be carried out in accordance with the requirements of the approved 'Ecological Impact Assessment', produced by Clarkson & Woods Ecological Consultants, dated October 2021.
17. The temporary access and route from Langley Road to the battery compound hereby permitted shall be closed and the area reinstated to its existing condition within 6 months of completion of construction related activity.
18. The noise level from the operation of the battery storage plant and associated plant and machinery between the hours 07:00 and 23:00 shall not exceed 39dB L(A)eq 1- hour as measured 1m from the boundary of nearest residential receptors. The noise level from the operation of the battery storage plant and associated plant and machinery between the hours 23:00 and 07:00 shall not exceed 35dB L(A)eq 15- minute as measured 1m from the boundary of nearest residential receptors.
19. Operational hours of any demolition and construction activity, including vehicle movements to and from the site are restricted to 0800 to 1800

Monday to Friday and 0800 to 1300 Saturday, and at no time on Sundays or Bank and Public Holidays.



## Appeal Decision

Site visit made on 17 June 2022

**by Lewis Condé BSc (Hons), MSc, MRTPI**

**an Inspector appointed by the Secretary of State**

**Decision date: 12<sup>th</sup> August 2022**

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**Appeal Ref: APP/R0335/W/22/3294302**

**Cokeley Mead, Ryehurst Lane, Binfield, Bracknell RG42 5QZ**

- The appeal is made under section 78 of the Town and Country Planning Act 1990 against a refusal to grant planning permission.
  - The appeal is made by Mr Raymond Livesley against the decision of Bracknell Forest Borough Council.
  - The application Ref 21/00855/FUL, dated 25 August 2021, was refused by notice dated 24 November 2021.
  - The development proposed is described as 'To install a 10Kw ground mounted PV solar panel system in the field at the back of the property'.
- 

### Decision

1. The appeal is dismissed.

### Main Issues

2. The main issues are:
  - Whether the proposal is inappropriate development in the Green Belt having regard to the National Planning Policy Framework (the Framework) and any relevant development plan policies;
  - The effect of the development on the openness of the Green Belt; and
  - Whether the harm by reasons of inappropriateness, and any other harm, would be clearly outweighed by the other considerations so as to amount to the very special circumstances required to justify the proposal.

### Reasons

#### *Inappropriate Development*

3. The solar panels are proposed to be installed in a field to the north of Cokeley Mead that is located within the Green Belt.
4. Government attaches great importance to Green Belts, with the Framework identifying that development within the Green Belt is inappropriate, except for specific developments that are listed at paragraphs 149 and 150.
5. Policy CS9 of the Core Strategy Development Plan Document, adopted February 2008 (Core Strategy) and Saved Policy GB1 of the Bracknell Forest Borough Local Plan, adopted January 2002 (Local Plan), set out a presumption against inappropriate development in the Green Belt. Policy GB1 of the Local Plan establishes a few limited exceptions, including some uses of land that

preserve the openness of the Green Belt. The aims of these policies are broadly consistent with the Green Belt provisions of the Framework.

6. The proposal is not one of the listed exceptions under either the Framework or Saved Policy GB1 of the Local Plan. Accordingly, the appeal proposal would be inappropriate development in the Green Belt, which is, by definition, harmful.

### *Openness*

7. The Framework also sets out that the fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open, with the essential characteristics of Green Belts being their openness and their permanence.
8. The area that the development is proposed to be located within is devoid of buildings or structures. The proposed solar panels would be located relatively centrally within the field, set away from its boundaries. Due to their scale and siting within the field, alongside mature vegetation at the site's boundaries, views of the solar panels would be extremely limited from public vantage points. The trees that have been planted by the appellant, once matured, would further screen and limit views of the proposal.
9. However, the concept of openness does not relate directly to visibility or visual harm but to the absence of building and development. It follows that openness can be harmed even when development is not readily visible from the public domain. The installation of solar panels covering an area of approximately 50sqm and having a height of around 2m, would still have a spatial impact and reduce openness.
10. Accordingly, in addition to the harm arising from the proposal constituting inappropriate development, there is also a degree of harm arising from the loss of openness and from being contrary to one of the purposes of including land within the Green Belt.

### *Other Considerations*

11. The proposed scheme would contribute toward reducing carbon emissions. Given the proposal is of a domestic scale, supporting a single dwelling, the level of renewable energy produced would be rather modest. Nevertheless, the Framework sets out that even small-scale renewable energy projects can provide a valuable contribution to cutting greenhouse gas emissions. Paragraph 151 of the Framework also recognises that very special circumstances may include the environmental benefits associated with the production of energy from renewable sources. I have therefore given significant weight to the renewable energy benefits of the scheme, despite its relatively modest scale.
12. It has been put to me that the solar panels could be removed after a period of around 30 years, with the land then restored to its previous state. The appellant has indicated a willingness to accept a condition to secure their future removal. Although the proposal would be in place for a considerable period, it remains that the development would be reversible and this could be appropriately conditioned. Planning Practice Guidance (PPG) advises on circumstances where a temporary planning permission may be appropriate<sup>1</sup>; the proposal does not meet such circumstances. As such, the reversible nature

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<sup>1</sup> Paragraph: 014 Reference ID: 21a-014-20140306



of the development weighs in favour of the scheme, albeit only carries moderate weight.

13. It is also suggested that the solar panels are a more efficient use of the land compared to its potential use as a paddock for horses or agricultural use. However, the site is not currently used in such a manner, and there is no compelling evidence before me as to the potential scale of these alternative uses, their likelihood, or their associated impacts. Accordingly, the weight that I have given to this matter is limited.
14. The appellant has already undertaken several measures to improve the energy efficiency and carbon impact of Cokeley Mead. It is also indicated that additional methods to further decarbonise the property, as an alternative to the current proposals, have been considered but were not deemed appropriate. However, limited evidence has been provided to verify that alternative options are not feasible or have been exhausted.
15. The scheme's lack of harm to neighbouring amenity or the character and appearance of the area are to be expected of new development proposals. Therefore, these matters are of neutral consequence in the overall planning balance.

### **Planning Balance and Conclusion**

16. The proposed solar panels would comprise inappropriate development that harms the openness of the Green Belt and the purposes for including land within it. The Framework clearly sets out that inappropriate development is, by definition, harmful to the Green Belt and should not be approved except in very special circumstances.
17. The Framework makes it clear at Paragraph 148 that substantial weight is given to any harm to the Green Belt. It establishes that 'very special circumstances' will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm resulting from the proposal, is clearly outweighed by other considerations. The Framework recognises that "very special circumstances" may include the contribution towards increased production of energy from renewable sources. However, this does not indicate that such environmental benefits, of any scale, or in isolation, outweighs harm by virtue of inappropriateness.
18. In this instance, the renewable energy benefits of the proposal and the fact that the development would be reversible after a prolonged period, together with all other matters raised in support of the proposal, do not clearly outweigh the harm to the Green Belt. Consequently, the very special circumstances necessary to justify the development do not exist. The proposal therefore conflicts with Saved Policy GB1 of the Local Plan, Policy CS9 of the Core Strategy and the Green Belt provisions of the Framework.

*Lewis Condé*

INSPECTOR

# **Appendix C - Extract From - Agricultural land use in England, Department of Food and Rural Affairs (DEFRA), 29 September 2022**

National statistics

# Agricultural land use in England at 1 June 2022

Published 29 September 2022

## **Applies to England**

[Contents](#)

[Key Points](#)

[Section 1 – Detailed results](#)

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[Section 3 - What you need to know about this release](#)



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This release contains the estimates of crop areas, land use and land ownership on commercial agricultural holdings in England on 1 June 2022 from the June Survey of Agriculture. Cereal and oilseed areas were published on 31 August and were released early to meet user need. They are included here for completeness and remain unchanged.

All results tables are available in the accompanying dataset which is available at [Land use areas in England 2002 to 2022 \(https://www.gov.uk/government/statistics/agricultural-land-use-in-england\)](https://www.gov.uk/government/statistics/agricultural-land-use-in-england).

## Key Points

### Agricultural land use

- The utilised agricultural area (UAA) is 8.9 million hectares in 2022 and accounts for 69% of the total area of England.
- The total croppable area accounts for just over half (55%) of UAA and has remained broadly stable at just under 4.9 million hectares in 2022.
- Permanent grassland accounts for an additional 41% of UAA and has increased by 2.4% to just over 3.6 million hectares in 2022.

# Appendix D - Agricultural facts – East of England, DEFRA, 2019

## Defra statistics: Agricultural facts – East of England

(commercial holdings at June 2019 (unless stated))

The **East of England** region comprises Peterborough, Cambridgeshire, Norfolk, Suffolk, Luton, Bedfordshire, Hertfordshire, Thurrock and Southend-on-Sea and Essex. The Broads National Park lies within the region.



For the **East of England** region:

- Total Income from Farming increased by 31% between 2015 and 2019 to £885 million.
- The biggest contributors to the value of the output (£3.4 billion), which were wheat (£625 million), poultry meat (£527 million), fresh vegetables (£320 million), and pigs (£265 million), together account for 51%. (Sourced from [Defra Aggregate agricultural accounts](#))
- In the **East of England** the average farm size in 2019 was 121 hectares. This is larger than the English average of 87 hectares.
- Predominant farm types in the **East of England** region in 2019 were Cereal farms which accounted for 51% of farmed area in the region and General cropping farms which covered an additional 33% of farmed area.



## Land

	East	England
Total farmed area (thousand hectares)	1,411	9,206
Average farm size (hectares)	121	87
% of farmed area that is:		
Rented (for at least 1 year)	29%	33%
Arable area(a)	79%	52%
Permanent pasture	11%	36%

(a) Includes arable crops, uncropped arable land and temporary grass. Source: Defra, June Survey

## Crops

(Thousand hectares)	East	England
Wheat	457 (27%)	1,677
Barley	199 (24%)	832
Oilseed rape	109 (22%)	492
Field veg	28 (30%)	94
Potatoes	37 (34%)	109
Sugar beet	67 (62%)	108

Figures in brackets denote the proportion which the region contributes to the English total. Source: Defra, June Survey

## Livestock

(Thousand head)	East	England
Cattle	187 (4%)	5,100
Dairy herd	14 (1%)	1,102
Beef herd	41 (6%)	675
Pigs	1,049 (26%)	4,060
Poultry	29,037 (21%)	138,850
Table chickens	21,200 (22%)	95,150
Turkeys	1,596 (42%)	3,802
Sheep	354 (2%)	15,390

Figures in brackets denote the proportion which the region contributes to the English total. Source: Defra, June Survey

## Labour

	East	England
Total Labour <sup>(a)</sup>		
People:	40,220	306,374
Per farm <sup>(b)</sup>	3.4	2.9
Regular workers		
People:	11,115	68,962
Per farm <sup>(b)</sup>	1.0	0.6
Casual workers		
People:	7,136	45,843
Per farm <sup>(b)</sup>	0.6	0.4
% full time <sup>(c)</sup>	43%	44%
% part time <sup>(c)</sup>	33%	37%
% casual	18%	15%

(a) Farmers, partners, directors, spouses, salaried managers, regular and casual workers

(b) Averaged across all farms in region

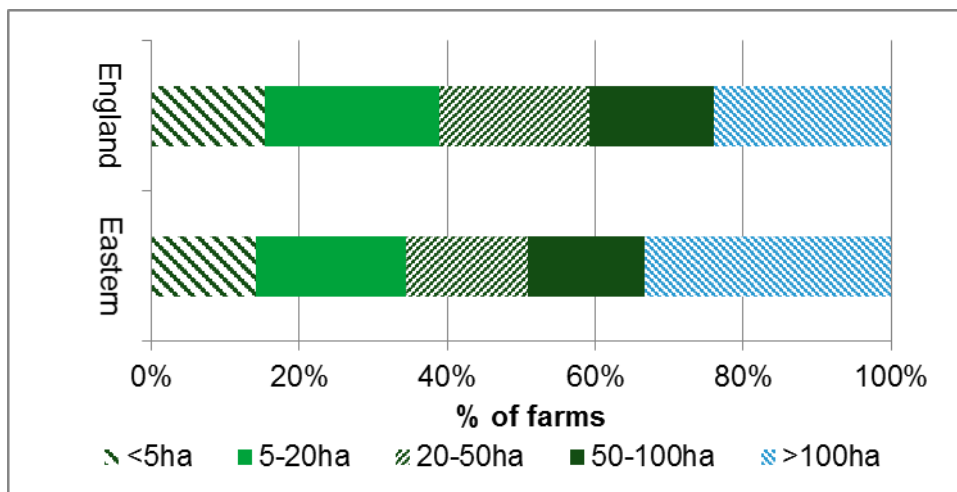
(c) Excludes salaried managers. Source: Defra, June Survey

## Farm Business Income (FBI) 2019/20 (a):

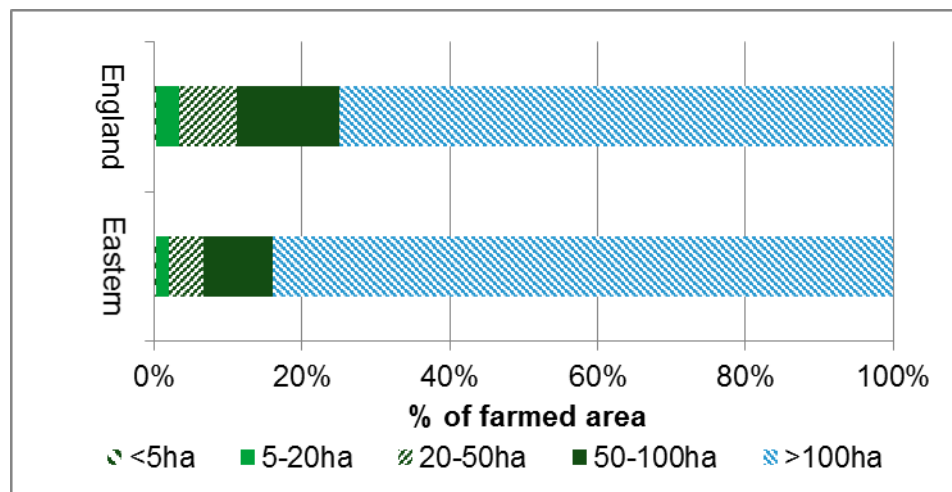
(£ per farm)	East	England
All types	78,600	46,000
Cereals	81,000	62,800
General cropping	110,000	84,400

(a) Years ending February, excludes farms with less than 25,000 euros of standard output. Source: Defra, Farm Business Survey

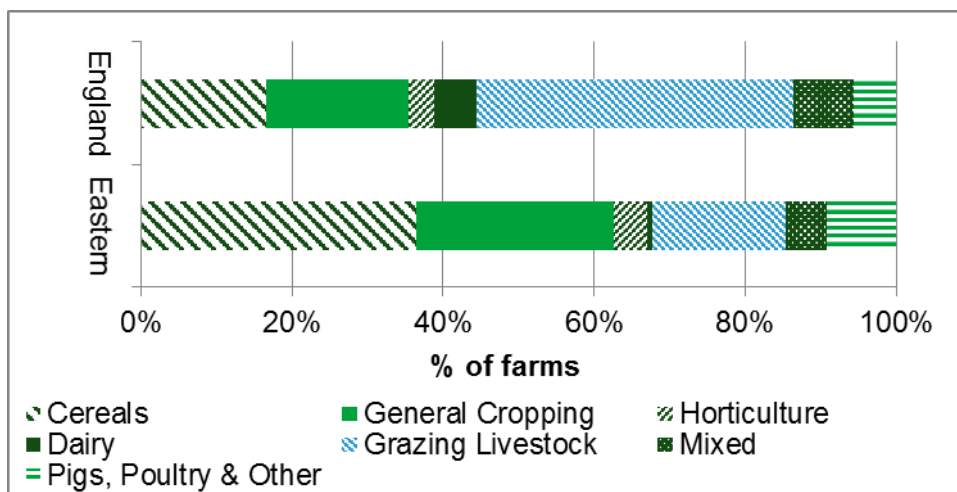
**Figure 1: Distribution of farms by size, percentage of farms**



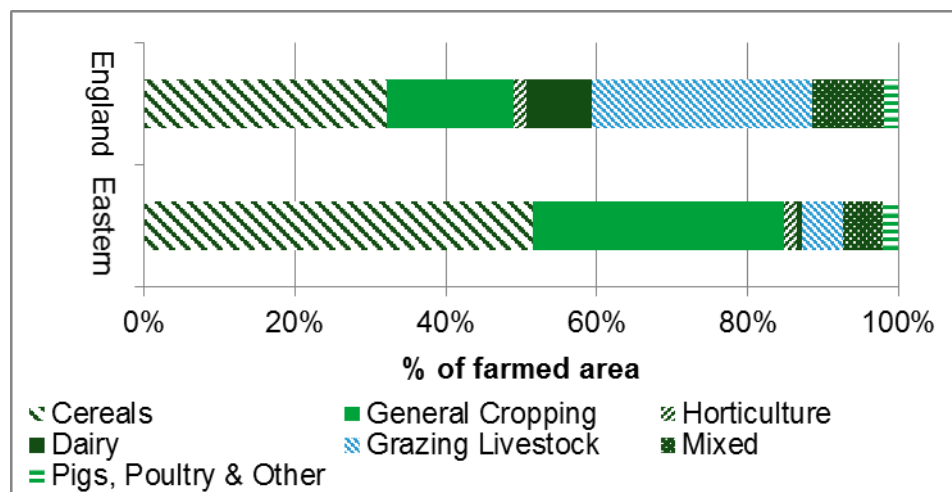
**Figure 2: Distribution of farms by size, percentage of farmed area**



**Figure 3: Distribution of farms by type, percentage of farms**

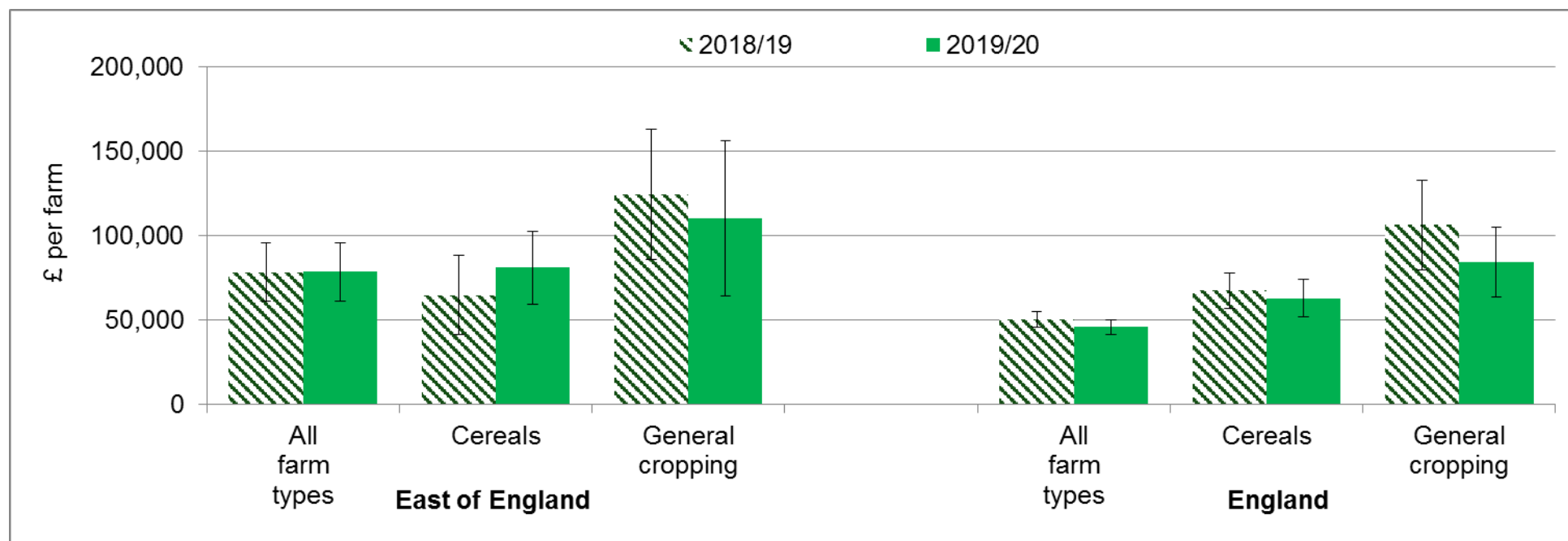


**Figure 4: Distribution of farms by type, percentage of farmed area**



Source: Defra, June Survey

**Figure 5: Average Farm Business Income**



Lines indicate the 95% confidence intervals

Source: Defra, Farm Business Survey. Excludes farms with less than 25,000 euros of standard output

Further information and other geographical classifications from the Defra June Survey can be found at our [web page](#)

England regional data for aggregate agricultural accounts can be found at [Agriculture in the English Regions](#)

English county data for farm accounts from the Farm Business Survey can be found at [Farm Business survey web page](#)

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# **Appendix E - Extract from Table P400b of Land Use Statistics for England 2018, Live tables, Ministry of Housing, Communities and Local Government, July 2020**



Ministry of Housing,  
Communities &  
Local Government

# Land Use Statistics England 2018

Live tables P400, P401, P402, P403, P404

Editor: Niall McSharry

Ministry of Housing, Communities and Local Government

Published: 16 July 2020

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**Table P400b Land Use: England, English Regions and English local authorities - total land area (hectares) by usage type April 2018**

[Contents Page](#)

		Non-developed Use			Grand Total
		Agriculture			
		Agricultural Buildings	Agricultural Land	Total	
	England	9,193.5	8,313,215.3	8,322,408.7	13,257,434.0
ONS Code	Local Authority Name				
E07000200	Babergh	16.3	46,966.9	46,983.2	61,203.5
E07000008	Cambridge	0.2	744.5	744.8	4,069.8
E07000009	East Cambridgeshire	92.0	55,030.4	55,122.4	65,171.9
E07000010	Fenland	33.9	46,820.4	46,854.3	54,735.2
E07000201	Forest Heath	36.2	22,915.1	22,951.3	37,753.0
E07000011	Huntingdonshire	98.3	72,148.5	72,246.7	91,253.4
E07000202	Ipswich	1.0	427.8	428.8	4,030.0
E07000203	Mid Suffolk	133.8	73,128.2	73,262.0	87,105.2
E07000012	South Cambridgeshire	88.7	71,978.3	72,067.0	90,168.5
E07000204	St Edmundsbury	50.1	49,703.1	49,753.2	65,695.9
E07000205	Suffolk Coastal	80.0	62,964.0	63,044.0	92,032.1
E07000206	Waveney	23.7	26,977.9	27,001.6	37,186.0

\*NOTE rows and columns relating to non-agricultural land uses or authority areas outside of Cambridgeshire and Suffolk have been hidden

# Appendix F – CPRE Report

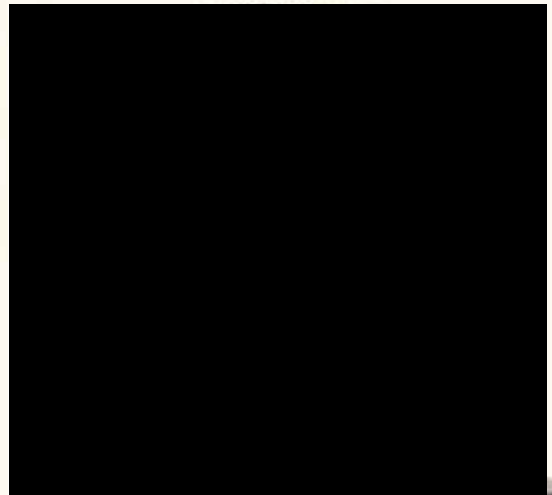




The  
countryside  
charity

# Building on our food security

July 2022







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# Executive summary

Maintaining agricultural capacity to deliver significant levels of domestic food production is critical. This must be achieved in the context of addressing and adapting to climate change, reversing the loss of nature and meeting increasing demands on land for other social goods — not least affordable housing and renewable energy.

With enough previously developed ‘brownfield’ land to provide 1.2 million homes, and south-facing rooftops that could meet much of our energy needs, we have a chance to tackle the climate, housing and cost-of-living crises without sacrificing our farmland. Adjusting our farming sector to a post-Brexit model of subsidies should support the necessary move away from damaging intensive farming practices and towards a more multifunctional approach to using land — reconciling food production with better management for natural and cultural heritage, and for public access. Policies that are put in place now will be crucial in ensuring the most efficient use of our land in the face of these challenges.

This report by CPRE, the countryside charity, looks to quantify rates of built development on farmland identified as Best and Most Versatile (Grades 1, 2 and 3a) in the Agricultural Land Classification (ALC) used by government. The review covers development between 2010 (the date of the last published government-commissioned review) and 2022. Our report is also the first to look at national rates of development specifically on Grade 1 and 2 land. We propose alternative policy measures which would result in better outcomes for this valued land and more sustainable options for building the new homes we need. Our recommendations aim to influence the full review of the National Planning Policy Framework (NPPF) expected in 2023.

There are clearly many competing priorities for our land, but it is essential to preserve our most productive agricultural land from long-term loss; the NPPF<sup>1</sup> aims to protect best and most versatile land from development, but evidence shows that this is not being achieved in practice. In recent years, substantial losses have been reported for housing development that could have been built on suitable brownfield land instead. And as we know, once this precious asset is built on, it is lost for good.

## Our key findings include:

- In the past 12 years we have lost over 14,000 hectares of prime agricultural land to development, including 287,864 houses — equivalent to the productive loss of around 250,000 tonnes of vegetables and enough to provide nearly two million people with their 5-a-day for an entire year.
- 2022 saw the greatest number of hectares of BMV land planned for development — equating to a 100-fold increase on the number of hectares of BMV land built on in 2010.
- Flooding as a result of climate change poses a further risk, with almost 60% of our most productive Grade 1 land already sitting in the Environment Agency's Flood Zone 3.
- Since 2010, planning appeals which involved BMV land have had a 46% allowance rate in comparison to a total appeals allowance rate of 25%.
- The East of England has lost 3,232 ha of BMV land since 2010 — the greatest absolute loss within a single region.
- The BMV land surrounding our towns and cities (almost a quarter of the total, and a valuable resource for feeding these populations) is being developed at a rate nearly twice that of the national average.

## CPRE therefore recommends that the government should:

- Consult on and publish a national land use strategy that provides an integrated framework for local policy and decision-making on both planning and farming.
- Incorporate the following guidelines in the new NPPF to ensure the loss of valuable farmland is minimised:
  - a brownfield first policy
  - a greater steer towards medium- and high-density new housing
  - a firm presumption against development on BMV land — the higher the ALC grade, the greater the weight which should be attached to its protection.
- Require site-specific surveys to be mandatory on any development proposals involving more than 1 ha of land, unless it is clear that the site will not contain BMV land.
- Require local authorities to identify and track development on BMV land in their district.



# Introduction

Maintaining agricultural capacity to deliver significant levels of domestic food production is critical. This must be achieved in the context of addressing and adapting to climate change, reversing the loss of nature and meeting increasing demands on land for other purposes — not least affordable housing and production of renewable energy. There is a particular need to move away from intensive farming practices and towards a more multifunctional approach to using land, reconciling food production with better management for natural and cultural heritage.

Appropriate identification, protection and use of our most productive land for food production will be a vital part of our national food security. The Government Food Strategy published in June 2022 stated that:

“We have some of the best performing farms in the world, with 57% of agricultural output coming from just 33% of the farmed land area”<sup>2</sup>.

It is therefore essential that we preserve the most productive agricultural land from long-term loss, but the evidence shows that, in practice, our national policies do not achieve this; recent years have seen substantial losses to housing development that could have been accommodated on suitable brownfield land instead.

Harnessing upcoming changes to land use policy can result in alternative policy measures which would result in better outcomes for our most productive land, as well as more sustainable options for building the new homes and energy facilities we need.





## Our Best and Most Versatile agricultural land

While all our land is of great value and potential for myriad reasons, the planning system's 'Best and Most Versatile' (BMV) classification is given to the agricultural land that is regarded as the most valuable in terms of its food producing potential. BMV land was first identified and classified in response to the demand for self-sufficiency following the Second World War. Land is identified as BMV (either Grade 1, 2 or 3a; there are six grades altogether) using the Agricultural Land Classification (ALC). The mapping of agricultural land is maintained by Natural England. Land which is classified as one of these three grades is deemed the most flexible in terms of the range of crops which can be grown, while also requiring lower inputs to produce high crop yields.

### Agricultural land classifications:

#### Grade 1:

Excellent quality agricultural land — land with no (or very minor) limitations and high and less variable yields. A very wide range of agricultural crops can be grown, such as apples and pears, salad crops, soft fruit, and winter harvested vegetables.

#### Grade 2:

Very good quality agricultural land — land with minor limitations that affect crop yields, cultivations or harvesting. Generally high yielding land but may be lower or more variable than Grade 1.

#### Grade 3a:

Good quality agricultural land — land which can consistently produce moderate to high yields of a reduced variety of arable crops, such as cereals, sugar beet and potatoes.

#### Grade 3b:

Moderate quality agricultural land — capable of producing moderate yields.

#### Grade 4:

Poor quality agricultural land — land with severe limitations.

#### Grade 5:

Very poor quality agricultural land — land with very severe limitations.

The process of grading agricultural land requires assessing factors which affect the site and its interactions, including: climate, aspect, gradient and soil. Crucially, the classification of BMV land does not consider the current agricultural use of the land, instead basing its grade on its inherent potential.



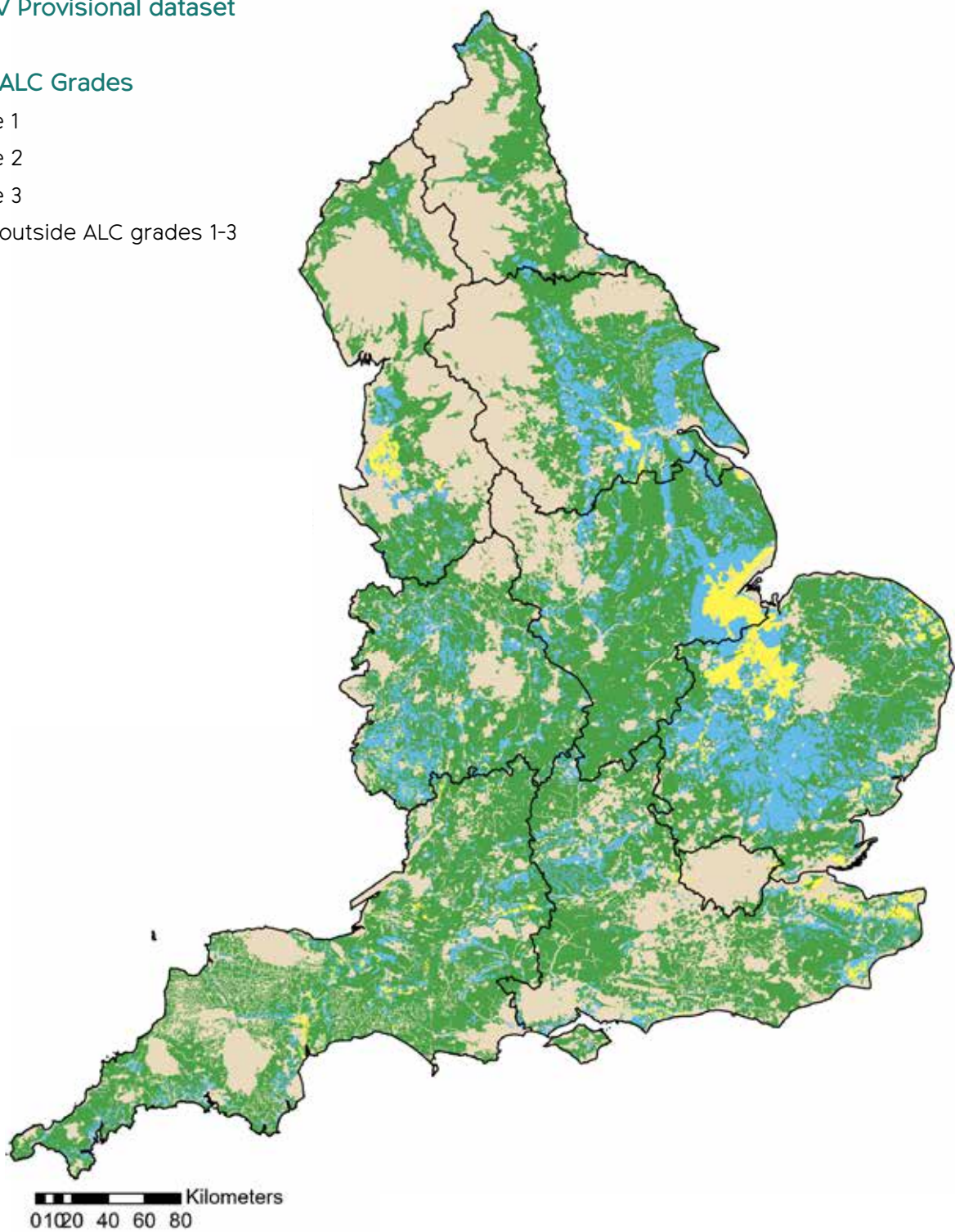


Figure 1

Map of BMV Provisional dataset

Provisional ALC Grades

- Grade 1
- Grade 2
- Grade 3
- Land outside ALC grades 1-3



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## BMV: Protected through policy but not monitored

Identifying where the Best and Most Versatile agricultural land is located is a vital process for enabling the planning system to deliver on its sustainable development objectives. Identifying the locations of BMV land informs decisions on how farms and soils might be affected by a development, with the overall purpose of protecting the land from inappropriate or unsustainable proposals.

The National Planning Policy Framework (NPPF) states that:

‘Planning policies and decisions should contribute to and enhance the natural and local environment...’ by ‘recognising the intrinsic character and beauty of the countryside and the wider benefits from the natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land...’

(Chapter 15, para. 174b). The NPPF also encourages local planning authorities to try to prioritise areas of poorer quality land for development over BMV.

In addition to national planning policy, legislation requires local planning authorities to consult Natural England (the government’s adviser for the natural environment) on all non-agricultural applications which result in the loss of more than 20 hectares of BMV land but are not included in their local development plan<sup>3</sup>. National Planning Practice Guidance for the natural environment provides planning authorities with information on the value of protecting BMV and planning for its future use<sup>4</sup>. Furthermore, undertakings to protect BMV land were made in the Government’s 25 Year Environment Plan of 2018<sup>5</sup>, which states that the sustainable and efficient use of natural resources is vital to improving the environment.

No monitoring of the use of BMV land, or loss of it to development, has been reported by government since 2010<sup>6</sup>. In fact, to CPRE’s knowledge, no national monitoring of development on land in the highest two grades (1 and 2) has ever been reported. This is in clear contrast to protected landscape designations of National Parks and Areas of Outstanding Natural Beauty, where land use patterns are monitored by the Department for Environment, Food & Rural Affairs (DEFRA), and Green Belts, where development rates are monitored by the Department for Levelling Up, Housing and Communities (DLUHC).

### Green Fingers in The Blue Finger

The ‘Blue Finger’ is a strip of Grade 1 agricultural land in north east Bristol that runs north into South Gloucestershire and is home to a number of community growing initiatives. Grow Wilder is a nature-friendly farming and gardening initiative run by Avon Wildlife Trust, while the Edible Futures market garden produces high quality salads and vegetables for the local community using environment friendly practices. Both these projects show the immense value that can be gained by communities and nature through the use of BMV land at the edge of towns and cities. Despite this, the Blue Finger has also suffered inappropriate development, with a new bus junction being developed through it in 2015. Changing national planning policies to require local plans to consider local food growing could play an important role in better protecting these often overlooked soils.

## Our best agricultural resource under threat

Despite national planning policy stating that the presence of BMV land should be considered when making planning decisions, this is not being achieved in practice. Shifts in policy which once focused on prioritising securing food production have now moved towards achieving ‘sustainable development’, which has resulted in increased losses of greenfield land in order to fulfil government housing delivery targets.

How we use our land resource is only going to become more important as the impacts of the climate emergency become evident, with significant areas of BMV land at risk of permanent flooding. Climatic change, especially rainfall patterns and accumulated temperatures, may also lead to changes in agricultural land quality that will reduce the extent of BMV land.

The purpose of this report is to build upon the previous research undertaken by DEFRA to review the effectiveness of BMV policy, in 2010 and 2004, which found considerable losses of high-grade agricultural land to development. We will explore the current extent of BMV land in England, analyse the current pressures placed on this land, and discuss policy measures which will result in better outcomes for people and the environment.

### A note on the different BMV datasets used

A number of datasets have been used in this report. Information on the extent of BMV land grades and development data in England was obtained and analysed from the following datasets:

- Provisional ALC 1:250,000 dataset (available at [www.magic.gov.uk](http://www.magic.gov.uk)) — this dataset categorises BMV land into Grade 1, 2 and 3 and was used to identify developments which have taken place on BMV land.
- Post 1988 ALC Site Data (DEFRA, available from Natural England) — a dataset of detailed individual site survey data which classifies 2.8% (or 325,200 ha) of England’s rural land into Grade 1, 2, 3a and 3b. This is out of a total area of 972,052 ha of detailed survey data available (8% of England’s rural area).
- ‘Likelihood of Best and Most Versatile’ (BMV) land/ ALC Strategic Map (DEFRA, available from Natural England, received April 2022) — a predictive dataset at a scale of 1:250,000 which uses a combination of detailed ALC post-1988 surveys, provisional ALC data, climatic data and National Soil Resources Institute information to assess soil association areas by their likely proportion of BMV land. The likelihood maps do not distinguish individual grades, instead the categories are: High likelihood (areas where more than 60% of the land is likely to be BMV), Moderate likelihood (20–60% of the land is likely to be BMV) and Low likelihood (less than 20% of the land is likely to be BMV)
- Glenigan Report commissioned by CPRE on development proposals and decisions on BMV agricultural land (Glenigan.com)



## How much BMV land is there and where is it?

In 2012 Natural England<sup>7</sup> estimated that Grades 1 and 2 together formed about 21% of all farmland in England, with Grade 3a covering a further 21%. At that time DEFRA<sup>8</sup> estimated that the total area of farmed land in England was 8.9m hectares, suggesting that just under 3,750,000 ha of farmland (42%) was BMV in 2012.

Across rural England, there has been limited detailed surveying of BMV land. Datasets that exist which try to quantify how much land is classified as Grade 1, 2 or 3a are largely based on strategic analyses of land quality. Due to the predictive nature of assessing BMV land quantities, there are several datasets using different methodologies to provide estimates. We explore the ‘Provisional ALC’, ‘Post 1988 detailed survey’, and ‘Likelihood of BMV’ mapping datasets in the following tables.

Table 1 shows the hectares of Grade 1, 2 and 3 according to the ‘Provisional’ mapping produced via reconnaissance mapping in 1966. It also describes the hectares of Grade 3a land which have been identified through the Post 1988 detailed mapping. This dataset only assesses 8% of rural England, and in the light of the 2012 Natural England estimate mentioned above, the true quantity of this land type will be much (possibly as much as 1.5 million ha) higher. Table 1 shows that, with the data we have available, there is an estimated 2,272,782 ha of BMV (Grade 1, 2 and 3a) land across England. This is largely concentrated across the East Midlands, East of England, South West and Yorkshire and the Humber regions.

### Table 1

The hectares of Grade 1 and 2 land according to the ‘Provisional’ dataset and the hectares of Grade 3a according to the ‘Post 1988’ dataset in England. Data: Provisional ALC 1:250,000 dataset; Post 1988 ALC Site Data.

Region	Grade 1	Grade 2	Grade 3a (Identified)	BMV Total (Grades 1, 2 and identified 3a)
East Midlands	105,864	398,622	5,654	510,140
East of England	104,133	506,487	8,169	618,789
London	4,128	7,895	77	12,100
North East		16,497	2,760	19,257
North West	29,134	79,143	4,812	113,089
South East	47,361	173,095	13,395	233,851
South West	37,318	220,045	17,033	274,396
West Midlands	13,584	186,845	7,847	208,276
Yorkshire and the Humber	13,064	260,449	9,371	282,884
<b>Total</b>	<b>354,586</b>	<b>1,849,078</b>	<b>69,118</b>	<b>2,272,782</b>



## Development on BMV land

The dataset obtained from development consultancy Glenigan was used to determine the hectares of BMV land which had been built on since 2010. This provided us with information on the developments which have taken place on BMV land according to the Provisional ALC dataset. As the Provisional ALC dataset does not provide subdivision of Grade 3, we used the Post 1988 detailed survey ALC dataset to identify which Grade 3 land was its respective Grade 3a category, where this detailed survey information was available (see above for further detail on this dataset).

From our available data we found that, between 2010 and 2022, there were 14,415 hectares of Grade 1, 2 and identified Grade 3a agricultural land covered by development (Figure 2). Of this, 8,035 ha were used for private housing developments totalling 287,864 houses. Another 1,400 ha were used for renewable energy developments including solar, illustrating that housing developments have had 55% of the impact on BMV land take.

In total, this 14,415 ha represents a 0.6% loss of our total identified BMV agricultural land of 2,272,782 ha (Table 1). Figure 2 also highlights that since 2010, there has been an overall increase in the amount of BMV agricultural land used for new developments, with a particular spike for projects with a start date of 2022. A total of 61 ha of identified BMV land was converted to development in 2010; this increases 100-fold in 2022, which sees project starts covering 6,500 ha of prime agricultural land and the highest rate of development identified to date.

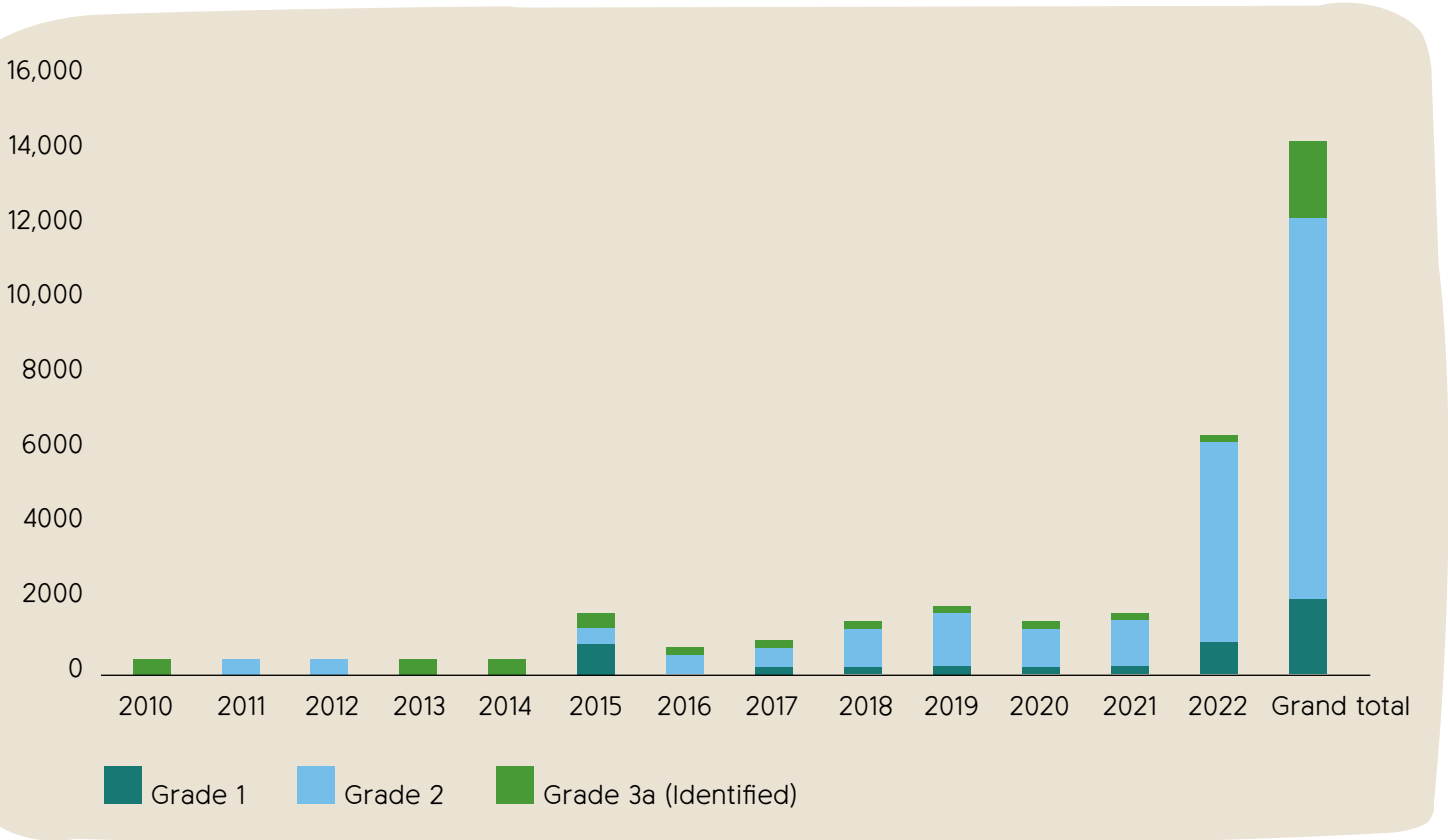
On first impression a 0.6% loss in our total BMV agricultural land sounds insignificant. However, the Food Foundation's Veg Facts series<sup>9</sup> found that, in 2018, only 1% of the UK's agricultural land was used to produce 52.7% of our vegetables — equivalent to 2.4 million tonnes<sup>10</sup> from 137,360 ha, or on average, 17.5 tonnes per hectare. If we extrapolate this production rate to the 14,415 ha BMV land developed in England, this is equivalent to losing the production of around 250,000 tonnes of vegetables — enough to provide nearly two million people with their 5-a-day for an entire year<sup>11</sup>. However, this calculation does not account for the higher crop yields from BMV agricultural land, meaning the production loss is likely to be higher than this.

For CPRE, the key point is that the loss of this land is unnecessary and avoidable. We have highlighted, through our State of Brownfield reports, that there is a plentiful and constantly replenishing supply of suitable previously developed (brownfield) sites available for housing development in each English region — more than enough to accommodate the housing that has been built on BMV land. In addition, there is plenty of potentially suitable alternative space for renewable technologies — particularly for solar panels on existing rooftops.

The general increase in the rate of development shown here is likely to be due to a gradual weakening of national planning policies on BMV, as well as on brownfield land and housing density. As previously discussed, the NPPF asks local planning authorities to consider the economic benefits of high-grade agricultural land when making planning decisions. But this is a demotion of BMV relevance within policy when we consider that the 1997 edition of the government’s Planning Policy Guidance note 7 had a firm presumption against building on BMV; this was supported by the ‘brownfield first’ and minimum residential density policies contained in PPG3 after 2000 — both of which served to minimise the need to build on productive farmland.

**Figure 2**

Shows the number of hectares of BMV land lost to development since 2010. Hectares lost of Grade 1 and 2 land are based on the ‘Provisional’ dataset and hectares lost in Grade 3a are based on available detailed survey information in the ‘Post 1988’ dataset. Data: Provisional ALC 1:250,000 dataset; Post 1988 ALC Site Data; Glenigan. See Table A1 for figures.





## The regional profile of BMV development

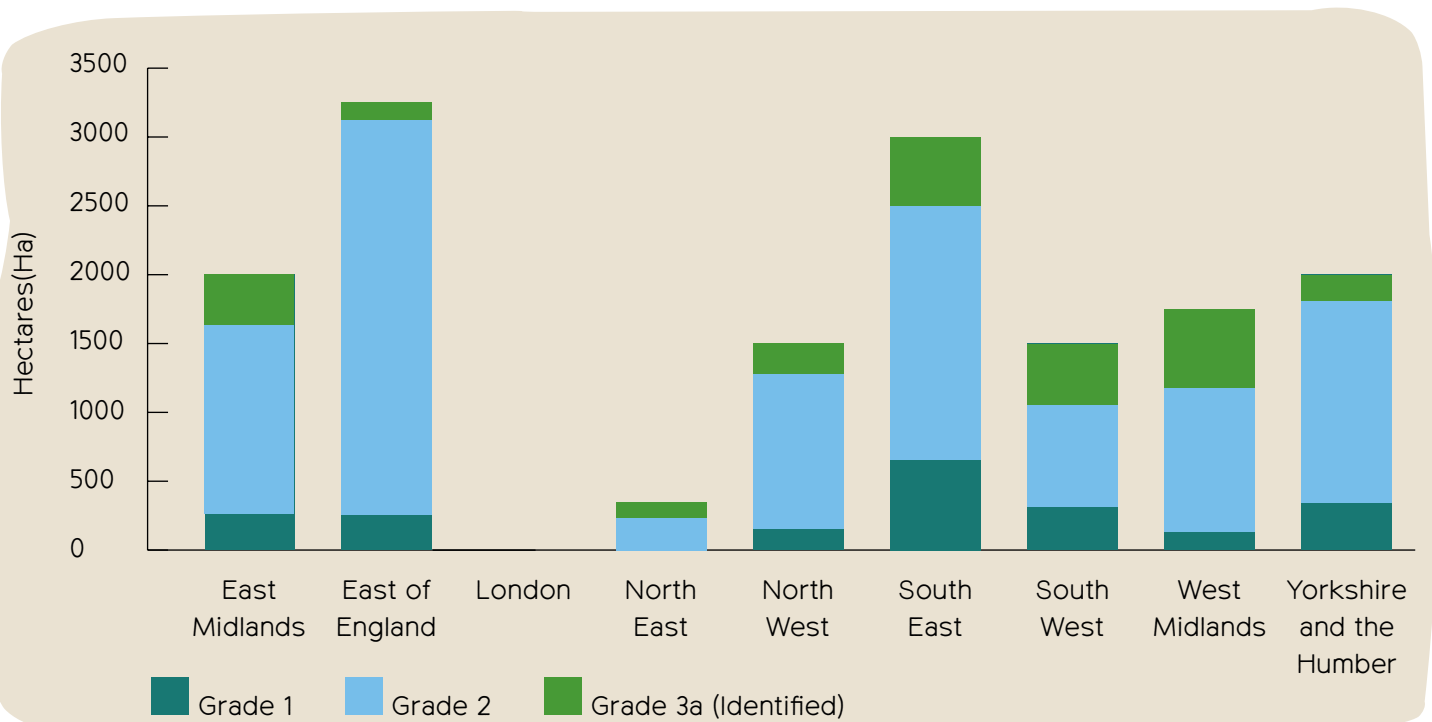
The same datasets were used to evaluate the regional differences in the overall loss of BMV agricultural land between 2010 and 2022, the result of which can be seen in Figure 3 and Tables 2 and 3.

There have been three regions (East Midlands, East of England and the South East) which have experienced the highest absolute losses of BMV agricultural land from development projects between 2010 and 2022 (Figure 3 and Table 2). In particular, the East of England has seen high levels of development on BMV land, having lost over 3,200 hectares over the past 12 years. This is followed closely by the South East region losing 2,920 hectares of BMV land overall, including the greatest regional loss of Grade 1 (excellent quality agricultural land) BMV land at 577 hectares.

Our BMV agricultural land is not spread evenly throughout the country; as previously highlighted, the top regions for the proportion of BMV are the East of England, East Midlands and Yorkshire and the Humber, so it would stand to reason that these areas would have some of the highest losses. However, Table 2 also shows that with over 1% loss each, the North East, North West and South East have seen the highest proportions of BMV land lost to development. Going further into the data, Yorkshire and the Humber has seen had the highest proportional loss of Grade 1 land, at over 3.5%, while the East Midlands, West Midlands and South East have lost 7%, 6% and 4%, respectively, of their Grade 3a land (Table 3).

### Figure 3

The hectares of Grade 1, 2 land according to the 'Provisional' dataset and the hectares of Grade 3a according to the 'Post 1988' dataset in England, which have been developed since 2010, by region. Data: Provisional ALC 1:250,000 dataset/ Post 1988 ALC Site Data/ Glenigan. See Table A2 for breakdown of figures.



**Table 2**

Shows the total hectares of BMV in each region, the number of those hectares which have been developed and the percentage developed as a proportion of the total area of BMV land in that region\*. Data: Provisional ALC 1:250,000 dataset; Post 1988 ALC Site Data.

Region	BMV Total	BMV Developed	Proportion developed (%)
East Midlands	510,140	1,970	0.39
East of England	618,789	3,232	0.52
London	12,100	2	0.02
North East	19,257	314	1.63
North West	113,089	1,255	1.11
South East	233,851	2,920	1.25
South West	274,396	1,316	0.48
West Midlands	208,276	1,629	0.78
Yorkshire and the Humber	282,884	1,777	0.63
<b>Total</b>	<b>2,272,782</b>	<b>14,415</b>	<b>0.63</b>

\* BMV figures derived from total sum of 'Grade 1', 'Grade 2' in Provisional dataset and 'Grade 3a (Identified)' in the Post 1988 dataset.

**Table 3**

The percentage of Grade 1, 2 and Grade 3a (identified) which has been developed in that region since 2010 as a proportion of the total area of each category in that region\*. Data: Provisional ALC 1:250,000 dataset; Post 1988 ALC Site Data; Glenigan.

Region	Grade 1	Grade 2	Grade 3a (Identified)
East Midlands	0.22	0.33	7.37
East of England	0.23	0.57	1.26
London	0.05	-	-
North East	-	1.52	2.29
North West	0.38	1.23	3.60
South East	1.22	1.04	4.04
South West	0.84	0.31	1.93
West Midlands	0.66	0.56	6.23
Yorkshire and the Humber	3.53	0.45	1.47

\* BMV figures derived from total sum of 'Grade 1', 'Grade 2' in Provisional dataset and 'Grade 3a (Identified)' in the Post 1988 dataset.

## BMV around towns and cities

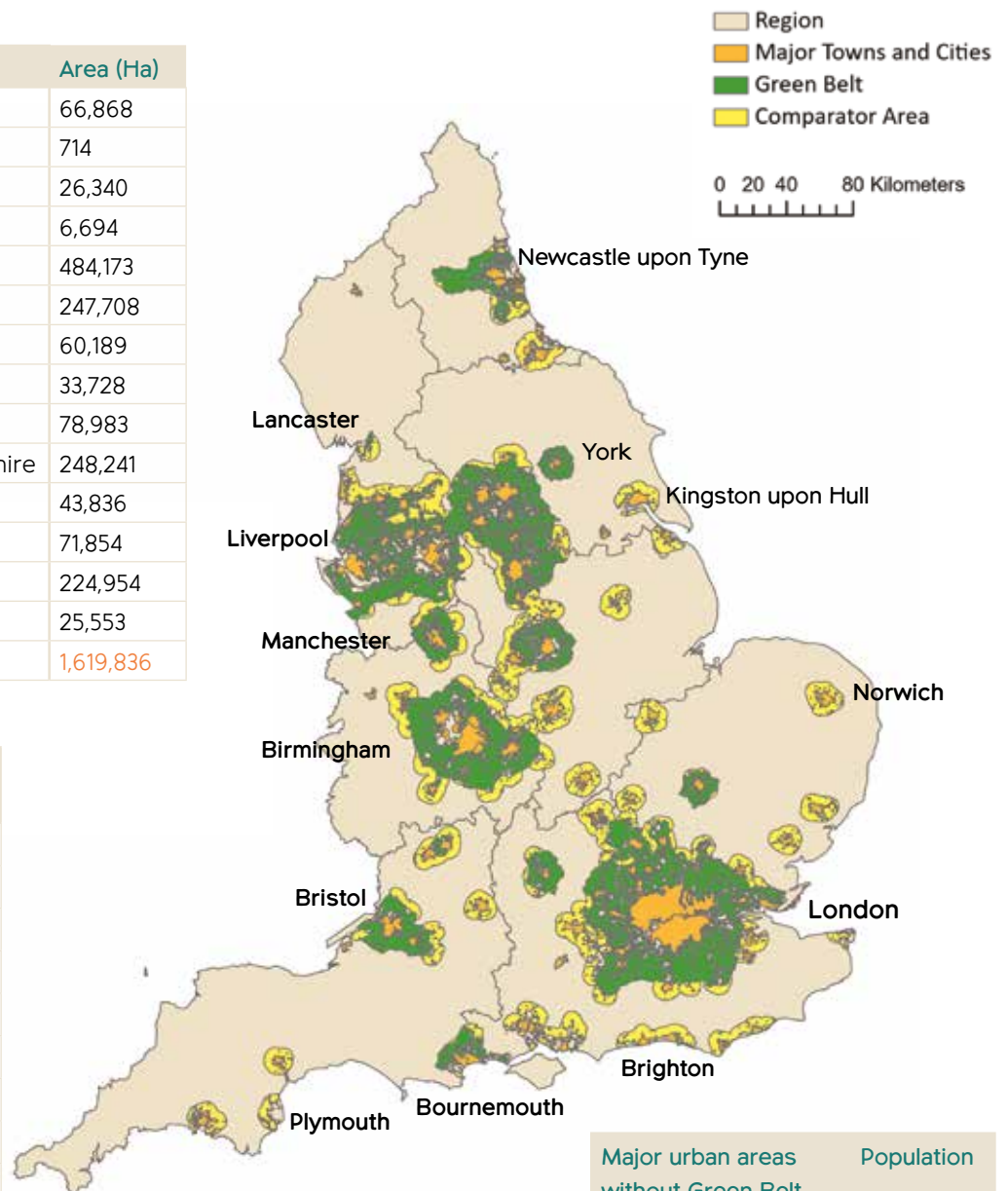
This part of the research looks at BMV development in areas designated as Green Belt, as well as areas of undesignated and largely undeveloped land around large towns and cities. Together, these areas of land make up around 22% of England's land area (Figure 4)

Figure 4

Countryside around towns including:  
Green Belt (green); other large towns & cities without Green Belts (yellow)

Green Belt	Area (Ha)
Avon	66,868
Burton and Swadlincote	714
Cambridge	26,340
Gloucester and Cheltenham	6,694
London	484,173
North West	247,708
Nottingham and Derby	60,189
Oxford	33,728
SW Hampshire and SE Dorset	78,983
South Yorkshire and West Yorkshire	248,241
Stoke on Trent	43,836
Tyne and Wear	71,854
West Midlands	224,954
York	25,553
<b>Total</b>	<b>1,619,836</b>

Major urban areas with Green Belt	Population
London	7,215,900
Birmingham	970,900
Liverpool	469,000
Leeds	443,250
Sheffield	439,870
Bristol	420,560
Manchester	394,270
Coventry	303,480
Bradford	293,720
Stoke on Trent	259,250
Wolverhampton	251,430
Nottingham	249,650
Derby	229,400



Major urban areas without Green Belt	Population
Leicester	303,580
Kingston upon Hull	301,420
Plymouth	243,800
Southampton	234,250
Reading	232,660

Safeguarding the land around our urban centres for nature-friendly farming allows for the connection between urban and rural economies to be rebuilt. This offers multiple benefits, such as securing access to locally produced foods for our urban centres; creating jobs through increased generation of goods and services; and providing green spaces and educational opportunities for city dwellers. The promotion of ecological farming practices in our urban fringe also has many benefits which will support existing government goals for the sequestration of carbon and promotion of biodiversity. The use of our urban fringe BMV land for ecological farming offers us the optimal return in regard to all of these benefits. However, due to its location, BMV land in the urban fringe is unique in that it will face a higher development threat than other areas of BMV land.

Our analysis found that there are 537,262 hectares of BMV classified land in the countryside around towns and cities; 23.6% of all England’s BMV is in these areas, making the urban fringe representative of the wider countryside in this sense.

Table 4 shows the amount of development which has occurred on BMV land in countryside around towns and cities. In total, 5,565 hectares have been lost — over a third of England’s total BMV loss and 1% of the total BMV land available in these areas. The regions which have been hardest hit by BMV development in countryside around their towns and cities are the East Midlands, North East, South East and South West. Grade 3a is experiencing the highest losses, with the East Midlands losing nearly 8% of its total identified 3a land while the North West and South East have lost 4% and 5% respectively.

**Table 4**

The hectares of Grade 1, 2 and 3 land according to the ‘Provisional’ dataset and the hectares of Grade 3a and 3b according to the ‘Post 1988’ dataset around towns and cities, which have been developed since 2010. Data: Provisional ALC 1:250,000 dataset; Post 1988 ALC Site Data; Glenigan.

Region	Grade 1	Grade 2	Grade 3a (Identified)	BMV Total
East Midlands	-	547 (0.94)	266 (8.53)	813 (1.31)
East of England	18 (0.15)	1,012 (0.86)	21 (0.59)	1,051 (0.79)
London	2 (0.06)	-	-	2 (0.02)
North East	-	102 (2.01)	35 (2.37)	136 (2.09)
North West	60 (0.21)	392 (0.94)	128 (4.25)	580 (0.79)
South East	363 (2.18)	548 (0.85)	268 (5.34)	1,178 (1.37)
South West	168 (1.96)	332 (1.30)	60 (1.39)	559 (1.46)
West Midlands	14 (0.53)	599 (0.77)	230 (3.93)	843 (0.98)
Yorkshire and the Humber	-	347 (0.97)	55 (0.94)	402 (0.96)
<b>Total</b>	<b>625</b>	<b>3,878</b>	<b>1,062</b>	<b>5,565 (1.03)</b>



## Development through Appeals

Local planning authorities make the decisions on whether a planning application should be given permission after weighing up many different variables as required by national planning policies. If an authority decides that a planning application should not be given permission, the applicant has a six-month window to decide if they would like to appeal that decision to the Secretary of State.

The Planning Inspectorate is a government agency which has the power, acting on behalf of the Secretary of State, to overturn a refusal of planning consent by a local planning authority (LPA) if it believes the LPA decision was unsound. In major cases the final decision may be taken by the Secretary of State who can overrule the planning inspector's recommendation. For this part of the research, CPRE analysed appeal decisions from 2010 onwards which include reference to BMV land, to gain understanding of how much weight the presence of BMV land has in planning decisions by the inspectorate.

Table 5 shows that since 2010, there have been 147 appeals that mention BMV land within the appeal report. Of these, 67 were allowed and 80 dismissed, an overall allowance rate of 46%. Appeals which were allowed used 788 ha of BMV land, with over half of this land take occurring in 2015 and 2016. This is much higher than the average rate at which all appeals are allowed (about 25%) but also consistent with the rate at which appeals involving a public inquiry are allowed. Most, if not all, appeals involving BMV land would need an inquiry due to the heightened controversy.

Further analysis into appeal reports showed us that the most common reason quoted for an application appeal to be allowed was due to the local planning authority not having a five-year housing land supply, quoted in 22 of the appeal reports. Of the 87 appeals which were dismissed, 12 gave 'significant' weight to the presence of BMV land while 10 gave 'moderate weight'. The presence of BMV land in 33 dismissed appeals played either a 'limited', 'modest' (or 'some') or no role in the appeal ultimately being rejected. This raises the question of how much value is being placed on the presence of BMV land by DLUHC and the Planning Inspectorate within the wider context of meeting housing targets in a district.

A recent comment made by Lord Benyon in a Lords debate on food security<sup>12</sup> remarked that

'very strict rules relate to both planning and the use of the best agricultural land',

in relation to a major solar development which has been given permission on BMV land in Suffolk. However, with almost half of appeals involving BMV land being allowed by the Planning Inspectorate, it could be reasonably argued that these policies are not strong enough.



## Housing development versus BMV protection

September 2021 saw an appeal for 118 houses on a BMV site in West Sussex allowed by the Planning Inspectorate. The development of the site resulted in a loss of 4.5 ha of Grade 2 and 3a agricultural land, as well as 2 ha of a nitrate mitigation site, and was described as ‘not ideal’ in the inspector’s report. Driven by Chichester’s out-of-date Local Plan, the development of this BMV land was described as ‘inevitable’ due to constraints on land from the protected South Downs National Park and Chichester Harbour AONB, limiting other development site opportunities to meet the councils housing needs. Current national planning policy results in these trade-offs between different land uses, whereas policy should allow for a more integrated decisions and better outcomes.

The introduction of a national land use strategy, together with more local influence over the implementation of land management policy, would allow for more integrated policies and decision-making, and better outcomes, addressing the wasteful pattern of development often driven by the requirement for a district to meet its housing targets. The outcome should be living more within environmental limits and being able to expand environmental capacity rather than continue to shrink it. In England, there is also an important equity dimension to land use: there is an increasingly urgent need to spread or ‘level up’ development and quality of life more fairly between the pressurised south of the country and the relatively neglected midlands and northern regions.

**Table 5**

Shows the number of allowed and dismissed appeal decisions which have mentioned BMV land within the Planning Inspector’s report. Data: Compass; CPRE analysis

Year	Allowed	Dismissed	Allowed Area (Ha)	Allowed Rate (%)
2010	-	-	-	-
2011	-	3	-	0
2012	1	3	4	25
2013	3	1	11	75
2014	3	4	77	43
2015	7	17	366	29
2016	17	28	117	38
2017	12	6	38	67
2018	4	5	11	44
2019	3	2	7	60
2020	4	5	45	44
2021	11	8	71	58
2022	2	1	40	67
<b>Total</b>	<b>67</b>	<b>80</b>	<b>788</b>	<b>46</b>



# Future threats: Flooding

The land losses resulting from permanent development on land classified as BMV is further compounded if we consider other current and future pressures on this land. Farmland is severely damaged when hit by flooding, causing delays to the harvest and a reduction in yields. For this analysis, we look into the current flooding threat BMV land faces.

The Environment Agency produces maps of flood risk to support food risk assessments in planning. Using the 'Flood Map for Planning (Rivers and Sea) - Flood Zone 3' dataset (data.gov.uk)<sup>13</sup> we determined how much of the Provisional ALC mapping fell into these areas. Flood zone 3 represents areas of the highest risk of flooding.

Table 6 shows that an estimated 212,319 ha of all England's Grade 1 BMV land is within flood zone 3 areas — this means 59.8% of all England's Grade 1 BMV land is at the highest risk of flooding. The regional profile of flood risk shows that 75% and 95%, respectively, of the East Midlands and East of England Grade 1 land is at the highest risk of flooding, shown on (Figure 6 a and b).

The figures presented here are representative of the current threat posed by flooding, but the consequences of climate change are likely to increase the threat posed by flooding even further. The Met Office predicts that the intensity of rain will increase and that, by 2070, rainfall in the summer will have increased by 20%, with a 25% increase in winter<sup>14</sup>. The implications of climate change will have severe consequences for the loss of BMV land and our resulting food security. Protecting BMV land from permanent development now is vital if we are to maintain a supply of BMV land as climate change progresses. Our analysis found that around 450 hectares of BMV land have already been used to build flood defence developments, suggesting that we are already seeing the impacts on climate change on this land.

**Table 6**

The hectares of Grade 1, 2 and 3 land according to the Provisional dataset which fall into Flood Zone 3 by region. Data: Provision ALC 1:250,000 dataset / Environment Agency<sup>15</sup>

Region	Grade 1	Grade 2	Grade 3	Total
East Midlands	79,903	121,191	105,897	306,991
East of England	98,784	89,969	87,797	276,550
London	130	15	1,077	1,222
North East	-	5,153	16,732	21,885
North West	6,625	10,965	41,290	58,880
South East	6,994	24,256	51,944	83,194
South West	1,606	14,956	82,424	98,986
West Midlands	1,426	9,349	44,525	55,300
Yorkshire and the Humber	16,851	58,736	97,000	172,587
<b>Total</b>	<b>212,319</b>	<b>334,590</b>	<b>528,686</b>	<b>1,075,595</b>

Figure 6a shows the Grade 1 classified land within the East Midlands and East of England regions. Figure 6b shows the Grade 1 land (as in Figure 6a) and those areas which are considered to be in 'Flood Zone 3'

Figure 6a

Legend

- Grade 1
- Flood zone 3
- East Midlands and East Region

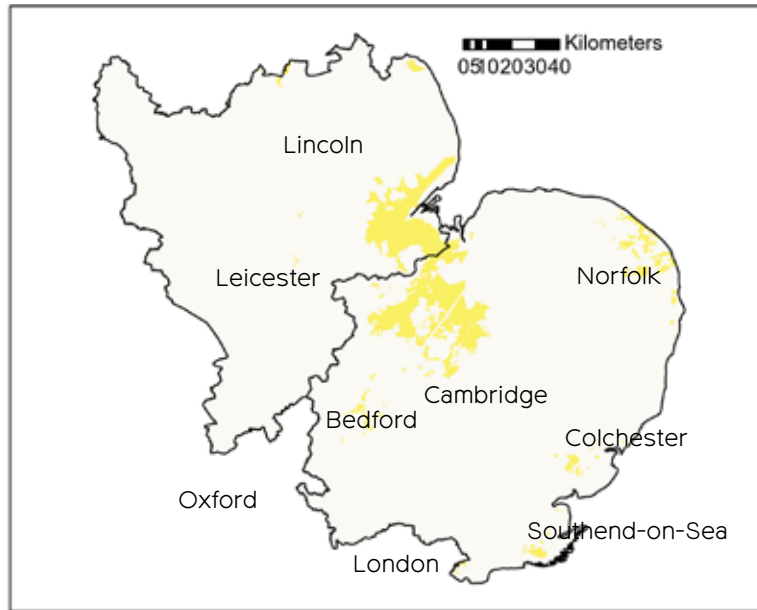


Figure 6b



© Environment Agency copyright and/or database right 2018. All rights reserved. some features of this map are based on digital spatial data from the Centre for Ecology and Hydrology, © NERC (CEH). © Crown copyright and database rights 2018 Ordnance Survey 100024198



# Conclusion and recommendations

This report has found that current planning policy is not sufficient in protecting our BMV agricultural land and that we continue to needlessly place development on this valuable resource. We have seen a trend of increasing amounts of BMV land being used for development since 2010, likely resulting from continued pressure on Local Planning Authorities to find land within their districts to meet their nationally imposed housing targets. The effects of housing pressure are surfacing in the usual hot spots for development such as the East of England and South East, in addition to high BMV land take in the West and East Midlands, likely resulting from a lack of land use strategies across the country. However, drawing solid conclusions on the status of development on BMV land will continue to be difficult until more accurate and up-to-date information is available on exactly where BMV land is. As a result, the figures we have stated in this report are indicative but are likely to be conservative estimates.

It is vital that we maintain as much of our domestic food production as possible. As recent events have shown, the food security of the country increasingly hangs in the balance. Meanwhile, the pressures on our most productive land will only continue to increase as we experience more damaging effects from the changing climate. Protecting our BMV agricultural land should be of top priority.

CPRE therefore recommends that the government should:

- Consult on and publish a national land use strategy that provides an integrated framework for local policy and decision-making on both planning and farming.
- Incorporate the following guidelines in the new NPPF to ensure the loss of valuable farmland is minimised:
  - a brownfield first policy
  - a greater steer towards medium- and high-density new housing
  - a firm presumption against development on BMV land — the higher the ALC grade, the greater the weight which should be attached to its protection.
- Require site-specific surveys to be mandatory on any development proposals involving more than one hectare of land, unless it is clear that the site will not contain BMV land.
- Require local authorities to identify and track development on BMV land in their district.



## Methods

Development on BMV land analysis: To understand the quantities of BMV land which have been built on since 2010, we used several spatial datasets from Natural England and a development dataset obtained from development consultancy, Glenigan. The majority of information on the ALC Grade of soils throughout the country is based on the old system which does not include Grades 3a and 3b, instead placing both of these Grades into an aggregated Grade 3. Using GIS tools and the Post 1988 dataset, we were able to determine which developments in our dataset fell into Grade 3a land, and as a result could be considered BMV for our findings. It should be noted that the post 1988 dataset covers only 8% of rural England, and as a result, we were only able to identify 3% of the Grade 3 land which fell into Grade 3a or 3b.

### Appeals analysis:

During April 2022, CPRE collated inspector reports from planning appeals platform, Compass. A key word search was conducted using the phrases 'BMV' and 'Best and Most Versatile' to identify the relevant appeals.

### Flooding risk analysis:

To assess the risk to faced by BMV to Flooding, CPRE used the existing 'Provisional' mapping dataset and the Environment Agency's flood risk for planning, flood zone 3 datasets, to understand where areas of BMV land were falling in relation to high flood risk areas. Using GIS tools these two spatial datasets were overlaid, and the intersect between flood zone 3 and Grade 1 areas was measured.



## Complementary tables of figures

**Table A1**

Shows the number of hectares of BMV land lost to development since 2010. Hectares lost of Grade 1 and 2 land are based on the 'Provisional' dataset and hectares lost in Grade 3a are based on available detailed survey information in the 'Post 1988' dataset. Data: Provisional ALC 1:250,000 dataset; Post 1988 ALC Site Data; Glenigan.

Row Labels	Grade 1	Grade 2	Grade 3a (Identified)	BMV total
2010	1.15	59.03	1.29	61.47
2011	1.87	102.32	-	104.19
2012	39.26	1.68	-	40.94
2013	3.94	107.36	0.87	112.17
2014	5.08	94.25	16.00	115.33
2015	484.44	278.42	197.17	960.04
2016	34.85	363.94	17.28	416.07
2017	110.04	414.43	81.07	605.54
2018	132.88	855.15	139.44	1,127.47
2019	220.71	1,252.16	313.40	1,786.27
2020	93.03	802.42	172.10	1,067.55
2021	154.91	1,158.48	222.79	1,536.18
2022	752.38	4,637.93	1,091.94	6,482.26
<b>Total</b>	<b>2,034.5</b>	<b>10,127.6</b>	<b>2,253.4</b>	<b>14,415.5</b>

**Table A2**

The hectares of Grade 1, 2 and 3 land according to the 'Provisional' dataset and the hectares of Grade 3a and 3b according to the 'Post 1988' dataset in England, which have been developed since 2010, by region. Data: Provisional ALC 1:250,000 dataset; Post 1988 ALC Site Data; Glenigan.

Region	Grade 1	Grade 2	Grade 3a (Identified)	BMV Total (Grade 1, 2 and identified Grade 3a)
East Midlands	238	1,315	417	1,970
East of England	243	2,887	103	3,232
London	2	-	-	2
North East	-	251	63	314
North West	111	971	173	1,255
South East	577	1,802	541	2,920
South West	313	674	329	1,316
West Midlands	90	1,050	489	1,629
Yorkshire and the Humber	461	1,178	138	1,777
<b>Total</b>	<b>2,035</b>	<b>10,128</b>	<b>2,253</b>	<b>14,415</b>

## Supplementary analyses

### Likelihood of BMV land dataset

While the analyses in this report provide us with some insight into the quantities of BMV land which have been developed, the limited size of the Post 1988 Site Survey dataset means it is difficult to determine the true extent of BMV land take due to limited knowledge of the relative proportions of Grade 3a and 3b land.

Due to this, complementary analyses using Natural England's 'Likelihood' of BMV land dataset were undertaken to gain a strategic insight into the BMV land take for development and give some initial indication as to the full extent of BMV land being lost. This dataset is used to show the best available estimate of agricultural land quality at the date of compilation (April 2022) expressed in terms of the proportion of land likely to be classified as BMV, either 'High', 'Moderate' or 'Low' (see Box 2 for the breakdown of these categories).

As the Likelihood dataset is based on a proportion of land being BMV, our results have been made on conservative estimates which account for the probability that a development may not be on BMV land. For example, 60% of the total estimated land take is presented in Table 3A for the 'High' category, 40% of the land take for 'Moderate' and 20% for the 'Low' category.

Table A3 shows the likelihood of an area of land being either Grade 1, 2 or 3a, details of the likelihood categories can be found in Box 2. The areas of England which are likely to have high proportions of BMV land are predominantly found in the East of England, followed by the East and West Midlands, and Yorkshire and the Humber.

**Table A3**

Shows the hectares of land within England which fall into 'High', 'Moderate' or 'Low' likelihood of being BMV land. Data: Likelihood of 'Best and most versatile' (BMV) land/ALC Strategic Map

Region	High	Moderate	Low
East Midlands	540,193	481,762	341,292
East of England	945,344	431,137	216,432
London	8,057	6,164	7,831
North East	75,387	199,734	431,093
North West	240,429	232,307	679,513
South East	410,838	625,829	430,315
South West	477,820	667,416	938,988
West Midlands	519,162	392,691	187,285
Yorkshire and the Humber	511,336	241,719	573,304
<b>Total</b>	<b>3,728,566.00</b>	<b>3,278,759.00</b>	<b>3,806,053.00</b>



Our analysis found that it is likely that 18,772 hectares of BMV land have been used for development since 2010 — this is equivalent to 0.44% of the total BMV land available in England (Table A4) according to this dataset. Two regions, the East Midlands and West Midlands, have had the greatest BMV land losses in total terms and as a proportion of the amount of BMV land they have available, with 4,194 hectares (0.72%) and 3,631 hectares (0.72%), respectively. Figure A1 shows that the general trend since 2010 has been an increase in the use of BMV land for development (with particular peaks in 2019 and 2022) and that the usage of High Likelihood land has been increasing in particular. It is important to note that the relatively smaller numbers in the ‘Low’ category is likely due to our development dataset being based on the ‘Provisional’ BMV dataset, and as a result will not be a complete picture of all development on BMV land.

**Table A4**

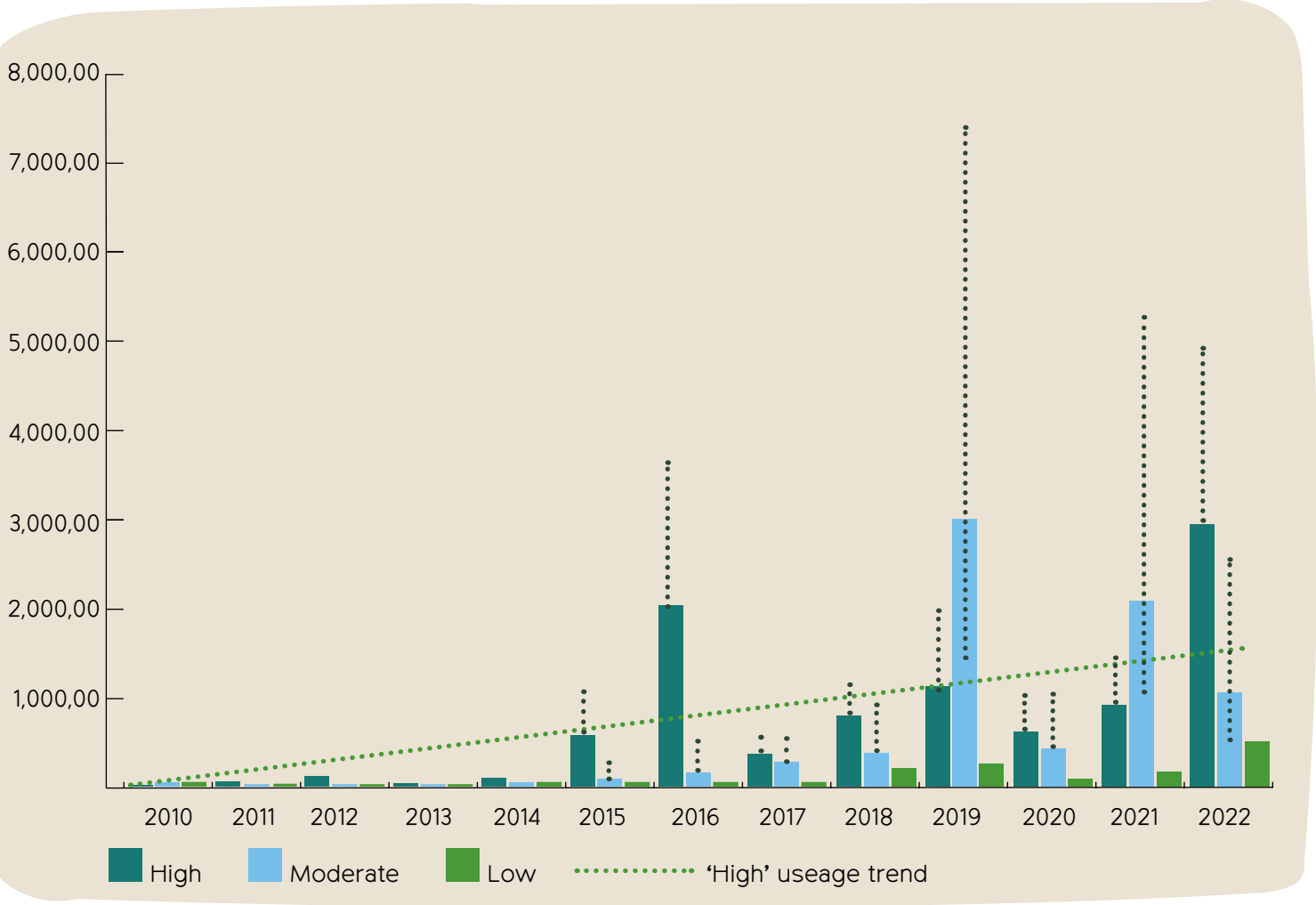
Shows the hectares of land within England which fall into ‘High’, ‘Moderate’ or ‘Low’ likelihood of being BMV land which have been developed, along with the percentage of this development as a proportion of the amount of that land type available in that region. Data: Likelihood of ‘Best and most versatile’ (BMV) land; ALC Strategic Map; Glenigan.

Region	High	Moderate	Low	Total
East Midlands	3,215 (0.99)	834 (0.43)	145 (0.21)	4,194 (0.72)
East of England	1,790 (0.32)	438 (0.25)	131 (0.30)	2,360 (0.30)
London	10 (0.20)	48 (1.95)	15 (0.99)	73 (0.83)
North East	89 (0.20)	286 (0.36)	225 (0.26)	601 (0.28)
North West	760 (0.53)	419 (0.45)	114 (0.08)	1,292 (0.35)
South East	1,044 (0.42)	601 (0.24)	222 (0.26)	1,867 (0.32)
South West	713 (0.25)	473 (0.18)	382 (0.20)	1,568 (0.21)
West Midlands	813 (0.26)	2,762 (1.76)	56 (0.15)	3,631 (0.72)
Yorkshire and the Humber	1,276 (0.42)	1,755 (1.82)	156 (0.14)	3,187 (0.62)
<b>Total</b>	<b>9,709 (0.43)</b>	<b>7,617 (0.58)</b>	<b>1,446 (0.19)</b>	<b>18,772 (0.44)</b>



**Figure A1**

Shows the hectares of land within England which fall into 'High', 'Moderate' or 'Low' likelihood of being BMV land which have been developed. Error bars show variation within the likelihood category. Trendline shows the rate of 'High' probability land being developed since 2010. Data: Likelihood of 'Best and most versatile' (BMV) land/ALC Strategic Map/ Glenigan



## Explanatory note re Digital ALC data

### There are four digital Agricultural Land Classification (ALC) datasets:

- Provisional ALC 1:250,000 dataset. Also available to view and download from the website [www.magic.gov.uk](http://www.magic.gov.uk) (select 'interactive map' then 'landscape' topic and a scale of 1:250 001 to view).
- Pre 1988 ALC site data – individual sites surveyed in more detail by MAFF (including subdivisions of Grade 3 Land) before 1988; individual sites mapped at varying scales and level of detail from 1:5,000 to 1:50,000 (typically 1:10,000). Older data for land assessed under 'old' ALC guidelines which have now been superseded. Original paper maps and reports have been scanned by DCS and held in 'Filestore' (password access). Survey files and other soil records are stored with TNT.
- Post 1988 ALC site data - individual sites surveyed in more detail by MAFF (including subdivisions of Grade 3 Land) between 1989 and 1999; individual sites mapped at varying scales and level of detail from 1:5,000 to 1:50,000 (typically 1:10,000). The most detailed and up to date dataset. Original paper maps and reports have been scanned by DCS and held in 'Filestore' (password access). Survey files and other soil records are stored with TNT.
- Likelihood of 'Best and most versatile' (BMV) land – (sometimes referred to as ALC Strategic Map) is derived from existing ALC, ALC climate data and Soil Association data (not current NSRI dataset but that originally digitised by FRCA from the published paper soil maps).

Defra is nominally the owner of all this data but Natural England acts as its guardian. Natural England is the only body holding the data, including all the paper site survey records which support them, and is the main source of expertise. (Julie Holloway is the national lead and Defra would refer all enquiries they receive to Julie).

The attached explanatory leaflet gives further background [REDACTED]

[REDACTED]. The work on minerals and waste planning referred to in this leaflet is a statutory Natural England responsibility so we also use the data for day to day planning advice. It is also underpins the technical advice which Natural England uses to assist planners and others, including Defra, the public and consultants on soils and agricultural land in land use planning and related land evaluation work.

Natural England releases most of this ALC data in a digital format (subject to restrictions on the likelihood of BMV land dataset and pre 88 ALC data). As the digital requests are relatively few it is either done through the national GI Unit or (more commonly) from the GI people in Reading or Bristol, who used to have national responsibility for this. There is a protocol for the release of ALC data which is currently being updated, but there is a working draft, currently on the 'N' Drive at N:\Evidence\Science Development & Delivery\Geology, Landscape & Soils\ALC (filename: draft ALC data release procedure NE version Nov 08).

Gill Shaw is also running a project to get the site data more readily accessible including links to the scanned original site maps and reports (of which there are approximately 6000).

### Digital Data supply:

1. Natural England can supply Provisional ALC data (stored on Natural England repositories) to contractors and/or the public. It is also available on [www.magic.gov.uk](http://www.magic.gov.uk) to download.
2. If people receive requests for the Pre or Post 1988 digital datasets (site specific surveys which include subdivisions of Grade 3 land) or 'Likelihood of best and most versatile land' data, they may wish to consult either Julie Holloway or Gill Shaw in the first instance.
3. The 'Likelihood of best and most versatile land' dataset should be accompanied by an explanatory note. Due to licence restrictions the digital dataset can only be supplied to public bodies or their contractors. There is no licence restriction on paper map extracts.

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# References

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- <sup>2</sup> Government food strategy, available at: [www.assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1082026/government-food-strategy.pdf](http://www.assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1082026/government-food-strategy.pdf)
- <sup>3</sup> Guide to assessing development proposals on agricultural land, available at: [www.gov.uk/government/publications/agricultural-land-assess-proposals-for-development/guide-to-assessing-development-proposals-on-agricultural-land](http://www.gov.uk/government/publications/agricultural-land-assess-proposals-for-development/guide-to-assessing-development-proposals-on-agricultural-land)
- <sup>4</sup> Planning Practice Guidance for the natural environment, available at: [www.gov.uk/guidance/natural-environment](http://www.gov.uk/guidance/natural-environment)
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- <sup>10</sup> DEFRA. Horticulture Statistics 2018.
- <sup>11</sup> Based on the 400g of fruit and vegetables requirement for a an adult a day
- <sup>12</sup> UK Parliament, House of Lords, Food Security, 13 June 2022, available at: [REDACTED]
- <sup>13</sup> a spatial dataset of areas of land estimated to be at 1% or greater risk of flooding each year from rivers, or a 0.5% or greater chance from the sea when flood defences are ignored
- <sup>14</sup> Met Office, Climate Change in the UK, available at: <https://www.metoffice.gov.uk/weather/climate-change/climate-change-in-the-uk>
- <sup>15</sup> Flood Map for Planning (Rivers and Sea) - Flood Zone 3, available at: <https://data.gov.uk/dataset/bed63fc1-dd26-4685-b143-2941088923b3/flood-map-for-planning-rivers-and-sea-flood-zone-3>









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