West Burton Solar Project

The Applicant's Responses to Written Representations

and other submissions at Deadline 1

Part 2

Prepared by: Lanpro Services

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West Burton

SOLAR PROJECT

Contents

Issue Sheet

Report Prepared for: West Burton Solar Project Ltd.
Examination Deadline 3

The Applicant's Responses to Written Representations and Other Submissions at Deadline 1: Part 2

Prepared by:

Name: Chris Lazarides

Title: EIA Consultant

Approved by:

Name: Jane Crichton

Title: Associate Director

Revision	Date	Prepared by:	Approved by:
0	3 January 2024	CL	JC

1 Introduction and Summary

1.1 Purpose of this document

1.1.1 This document provides West Burton Solar Project Limited (the 'Applicant's') response to the Written Representations (the 'WRs') and any other documents submitted to the Planning Inspectorate (PINS) by 24 November 2023 and 7 December 2023, relating to Examination Deadlines 1 and 1A respectively for the Development Consent Order Application (the 'Application') for West Burton Solar Project (the 'Scheme').

1.1.2 The Applicant's Response to Local Impact Reports from the host local authorities have been responded to separately in **WB8.1.20 The Applicant's Response to Local Impact Reports [EN010132/EX3/WB8.1.20]**.

1.1.3 A total of 97 WRs and other documents were submitted to the Examining Authority by Interested Parties in response to the Scheme. WRs were published on 29 November 2023 and 12 December 2023 to the Planning Inspectorate's website (PINS reference: EN010132).

1.2 Structure of the Report

1.2.1 This document provides responses from the Applicant to the matters raised in the Written Representations and is structured as follows:

- Table 1.1 lists those WRs published by the resident group 7000 Acres. These WRs have been responded to in full through Section 2 of this document.
- WRs received by host local authorities, all other statutory consultees, international agencies, undertakers, elected representatives, community organisations, and those whose interest would be affected by the Order have been responded to separately in the document **WB8.1.17 The Applicant's Response to Written Representations Part 1 [EN010132/EX3/WB8.1.17]**.
- WRs received by members of the public (who are not identified as Affected Persons) have been responded to separately in the document **WB8.1.19 The Applicant's Response to Written Representations Part 3 [EN010132/EX3/WB8.1.19]**.

1.2.2 References to the Application and Examination documentation, as submitted to the Planning Inspectorate, are provided in accordance with the referencing system as set out in the Planning Inspectorate's 'West Burton Solar Project Examination Library'.

Table 1.1: List of Written Representations and Other Submissions made by 7000 Acres that are Responded to in Section 2

PINS Reference	Written Representation Received
REP1-082	7000 Acres – Suggested locations for site inspections
REP1-083	7000 Acres – Summary of Representations
REP1-084 REP1A-023	7000 Acres – Summary of Oral Submissions made at OFH1
REP1-085	7000 Acres – Personal Statement from John Parkin – Health and Wellbeing
REP1A-010	7000 Acres – Joint Position
REP1A-011	7000 Acres – Agricultural Land Classification
REP1A-012	7000 Acres – Battery Energy Storage System Safety Concerns
REP1A-013	7000 Acres – Glint and Glare
REP1A-014	7000 Acres – Equality Impact Assessment
REP1A-015 REP1A-018	7000 Acres – Human Health and Wellbeing
REP1A-016 REP1A-025	7000 Acres – Flooding Concerns
REP1A-017	7000 Acres – Food Security
REP1A-019	7000 Acres – Land Productivity
REP1A-020	7000 Acres – Landscape and Visual Impact Assessment
REP1A-021	7000 Acres – National Policy Statements and Application of Planning requirements
REP1A-022	7000 Acres – Noise
REP1A-024	7000 Acres – Socio-Economics and Land Use
REP1A-026	7000 Acres – The role of Solar in Energy Provision and Decarbonisation
REP1A-027	7000 Acres – Wildlife and Habitat

2 The Applicant's Responses to Written Representations and Other Submissions made by 7000 Acres

2.1 Suggested Locations for Site Inspections

7000 Acres – Suggested locations for site inspections [REP1-082]

Reference	Theme	Issue	Summary of Issue Raised	Applicant's Response
7A-032	Landscape & visual impact	Local plan	From the Tillbridge Lane Viewpoint looking west towards Broxholme. This should show the scale and alteration of the landscape. This is a public place.	The Applicant notes this comment.
7A-033	Landscape & visual impact	Local plan	Road between Tillbridge Lane and Broxholme, particularly at the bends where the landscape is open and 4.5m panels would be impossible to screen. This is a public road	The Applicant notes this comment.

2.2 Summary of Representations

7000 Acres – Summary of Representations [REP1-083]

Reference	Theme	Issue	Summary of Issue Raised	Applicants Response
7A-034	Impacts on local community	Scale	Overall, the limited energy security and decarbonisation benefits the West Burton Solar Project claims to achieve are outweighed by the significant adverse impacts it would have on the region (its communities, ways of life, landscape and its wildlife) and on the nation (in particular pressure on land use and food security). 7000Acres are a group of volunteers seeking to address the fact that our community faces development of solar farms on an unprecedented scale in our region.	Please refer to response 7A-02 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.
7A-035	Impacts on local community	Lack of information	Public Consultation was insufficient/inadequate. Information was lacking and misleading. Those affected were unable to gain understanding of the proposals.	Please refer to response 7A-04 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.
7A-036	Impacts on local community	Landscape & visual impact	The proposed West Burton Solar Project would have a significant impact on visual amenity. The combined effect of four large solar farms in one area of Lincolnshire would be overwhelming.	Please refer to response 7A-05 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.

7A-037	Impacts on local community	Health and wellbeing of local residents	WBSP has the potential to have a significant detrimental impact on the general health and wellbeing of residents (rural mental health is a particularly important issue locally), depriving access to visual amenity, changing views, destroying agricultural jobs and livelihoods	Please refer to response 7A-06 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.
7A-038	Socio-Economics	Impacts on local community	WBSP fails to describe how proposed development could mitigate the harm through loss of employment and livelihoods caused by the development or remedy the underlying socio-economic situation	Please refer to response 7A-07 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.
7A-039	Impacts on local community	General opposition to project	All local Parish Councils and Meetings that have expressed a view to date are opposed to the proposed developments.	Please refer to response 7A-08 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.
7A-040	Socio-Economics	Impacts on local community	WBSP will provide power to the National Grid rather than local homes. It will displace agricultural jobs, provide few employment opportunities, and reduce local amenity.	Please refer to response 7A-09 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.
7A-041	Socio-Economics	Reducing capacity to sustain local employment	Small villages surrounded by WBSP have few opportunities for employment and very few amenities other than the open countryside landscape that it sits in. The scale of the WBSP would rob villages of this key attribute and erode the attractiveness of villages,	Please refer to response 7A-10 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.

			therefore reducing their capacity to sustain communities and populations	
7A-042	Size and scale	Impacts on local community	The development proposed for the WBSP are, in terms of size, an order of magnitude larger than any of the surrounding villages.	Please refer to response 7A-11 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.
7A-043	Size and scale	Impacts on local community	WBSP proposes solar panels which would have a height of 4.5m as well as extensive security fencing. At that height, the character of the land would undoubtedly be dominated by solar panels, which could not be adequately screened.	Please refer to response 7A-12 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.
7A-044	Heritage	Impacts on local community	The impact of the proposed scheme to heritage and such cultural assets has not been adequately explored or mitigated.	Please refer to response 7A-13 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.
7A-045	Transport and Access	Traffic	The West Burton Solar Project does not adequately consider the impact of traffic through rural routes and villages and the potential for disruption, damage, and noise.	Please refer to response 7A-14 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.
7A-046	Other Environmental Matters	Food Security	UK Food Security has not been considered, particularly in light of the circumstances of war, pandemic, crop disease and global warming on national and global supply chains.	Please refer to response 7A-15 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.

7A-047	Soils and agriculture	Land use	The overall sustainability impact of displacing what is currently grown on productive land has not been considered (what production will be lost and the additional food miles and carbon impact of production being required elsewhere)	Please refer to response 7A-16 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.
7A-048	Ecology and Biodiversity	Harm	WBSP does not provide a thorough assessment of the potential harm to the ecology and biodiversity of the area.	Please refer to response 7A-17 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.
7A-049	Other Environmental Matters	Life Span	60-70 year nature of the schemes is not truly temporary	Please refer to response 7A-18 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.
7A-050	Socio-Economics, Tourism and Recreation	Mitigation	The project design fails to consider or mitigate the impact of the large area of WBSP, which dwarfs surrounding villages	Please refer to response 7A-19 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.
7A-051	Socio-Economics, Tourism and Recreation	Alter Character	Development at the scale of the West Burton Solar Project would alter the character and appeal of the region to attract visitors, tourists, or new people to the region.	Please refer to response 7A-20 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.
7A-052	Socio Economics, Tourism and Recreation	Leisure impacts	The direct impact of WBSP on leisure and recreation have not been adequately considered.	Please refer to response 7A-21 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.

7A-053	Principle of Development	Cumulative Impact	The four NSIP solar projects should be considered together by the Planning Inspectorate, i.e. Cottam Solar Project, West Burton Solar Project, Gate Burton Energy and Tillbridge solar	The Applicant notes this comment.
7A-054	Principle of Development	Neighbourhood Plans	The project does not consider the detailed work by communities in developing approved neighbourhood plans	Please refer to response 7A-23 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.
7A-055	Principle of Development	Displacement	There is no clear case for extensive displacement of farmland through the installation of largescale ground-mounted solar farms	Please refer to response 7A-24 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.
7A-056	Planning Policy and Process	National Planning Statement	The proposed project has failed to follow the requirements of the current and draft National Policy Statements.	Please refer to response 7A-25 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.
7A-057	Soils and Agriculture	Land Use	WBSP represents a grossly inefficient use of land in the face of ever-increasing pressures on its use	Please refer to response 7A-26 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.
7A-058	Soils and Agriculture	Soils	Given the potential for a margin of error or change in the developer's ALC figures, it is imperative that there is an independent soil analysis conducted to establish the accurate picture and to be certain of the methodology that has been followed.	Please refer to response 7A-27 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**. Natural England are the statutory consultee for matters concerning the Best and Most Versatile agricultural land. Their deadline 1A submission [REP1A-008] states *"Natural England are satisfied*

				that the detailed ALC survey undertaken across the order limits is appropriate."
7A-059	Principle of Development	Alternatives	The proposed project fails in that reasonable alternatives have not been adequately considered.	Please refer to response 7A-28 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.
7A-060	Principle of Development	NSIP Misuse	It is a misuse of the NSIP process to develop the project in this way	Please refer to response 7A-29 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.
7A-061	Principle of Development	Compulsory Purchase	WBSP does not meet the necessarily high threshold to allow compulsory purchase.	Please refer to response 7A-30 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.
7A-062	Principle of Development	Information failure	Supporting information provided by WBSP is partial and fails to objectively consider all aspects and implications of the development	Please refer to response 7A-31 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.
7A-063	Energy Need	Disproportion	Combined impact of solar on the region would be disproportionate	Please refer to response 7A-32 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.
7A-064	Energy Need	Limited Benefits	Limited benefits of solar (load factor & timing).	Please refer to response 7A-33 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.
7A-065	Planning Policy and Process	Government Policy	There is no clear Government policy case for uncontrolled development of large scale, ground mounted solar farm	Please refer to response 7A-34 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.

7A-066	Climate Change	Limited Impact	Uncontrolled development of large-scale solar farms has the potential to limit the contribution of solar to carbon reduction policy	Please refer to response 7A-35 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.
7A-067	Climate Change	Economy	The claimed economic benefit of solar on energy prices is marginal.	Please refer to response 7A-36 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.
7A-068	Climate Change	Economy	Claiming to be able to power homes with solar and batteries at low cost is misleading	Please refer to response 7A-37 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.
7A-069	Socio-Economics, Tourism and Recreation	Community Benefit	Claims of community benefit are exaggerated or misleading.	Section 4.6 of **7.5_A Planning Statement Revision A [EN010132/EX3/WB7.5_A]** details the 'Other Benefits of the Scheme', beyond the national benefits as described through Sections 4.2 to 4.5. Paragraph 4.6.1 [**EN010132/EX3/WB7.5_A**] states that the Scheme will result in a significant Net Gain for biodiversity (86.80% gains provided in habitat, 54.71% gains in hedgerow and 33.25% gains in river units). The Applicant has also been in discussions with Saxilby Nature Project to agree inclusion of habitat management land for community use in the DCO application. A total of 0.8ha of land has been set aside as a habitat management area (Work No.10 in Schedule 1 of **3.1_C Draft Development Consent**

				Order Revision C [EN010132/EX3/WB3.1_C]). This area has been designed to take into account the objectives of Saxilby Nature Project and their neighbouring Hardwick Scrub site (see para. 4.5.90 of **6.2.4 Environmental Statement - Chapter 4 Scheme Description [APP-042]).** Any financial contributions towards the use of this land by Saxilby Nature Project will be agreed outside the scope of the DCO through the Community Benefit Fund, as described in paragraph 4.8.1 of **7.5_A Planning Statement Revision A [EN010132/EX3/WB7.5_A]**. Paragraph 4.6.1 [**EN010132/EX3/WB7.5_A**] goes on to explain that a new permissive path from Track off Sykes Lane along the Codder Lane Belt and then south and west to rejoin Sykes Lane opposite Hardwick Scrub will be in place during the operational phase of the Scheme, thus improving local amenity. Paragraph 4.6.1 **[EN010132/EX3/WB7.5_A]** explains that a Skills, Supply Chain and Employment Plan, as secured through Requirement 20 in Schedule 2 of **3.1_C Draft Development Consent Order Revision C [EN010132/EX3/WB3.1_C]**, will be in place prior to construction and will set out the measures that the Applicant will implement to advertise and promote employment and training opportunities associated

				with the Scheme in construction and operation locally. Separately to the Application, the Applicant is committed to providing a Community Benefit Fund (see paragraph 4.8.1 of **7.5_A Planning Statement Revision A [EN010132/EX3/WB7.5_A]**). This fund will be available for community-based benefits such as (but not limited to) community-led energy related projects. The Scheme is anticipated to bring direct, indirect, and induced employment and economic benefits to the Local and Regional Impact Area, as set out in Section 18.7, 18.8, and 18.10 of **6.2.18 Environmental Statement - Chapter 18 Socio Economics Tourism and Recreation [APP-056].** The net changes to employment, and to economic Gross Value Added in the local area (defined as West Lindsey and Bassetlaw districts) are: • For construction: +432 FTE jobs (para. 18.7.21), +£20.0 million per year (para. 18.7.52); • For operation: -2 FTE jobs (para. 18.7.81), +£1.5million per year (para. 18.7.99); • For decommissioning: +324 FTE jobs (para. 18.7.129), minor beneficial impact to GVA (para. 18.7.139).

				Please refer to response 7A-38 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.
7A-070	Principle of Development	Inefficient Use	Connecting solar directly to 400kV represents an inefficient use of strategic national infrastructure.	Please refer to response 7A-39 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.
7A-071	Principle of Development	National Grid	There is no requirement to connect solar direct to the National Grid.	Please refer to response 7A-40 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.
7A-072	Principle of Development	National Grid	Congestion in National Grid connection applications process means that the likely connection date for WBSP is November 2028, not 2026.	Please refer to response 7A-41 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.
7A-073	Soils and Agriculture	Land Use	WBSP constitutes a grossly inefficient use of land	Please refer to response 7A-42 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.
7A-074	Other Environmental Matters	EMF	The developer has not made adequate consideration of the impact of Electro Magnetic Fields.	Please refer to response 7A-43 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.
7A-075	Soils and Agriculture	Soils	Information available relating to flood management, drainage and soil erosion are inadequate.	Please refer to response 7A-44 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.

7A-076	Ecology & Biodiversity	Biodiversity Net Gain	WBSP have failed to explain how Biodiversity Net Gain would be achieved, nor is it clear what methodology or assumptions lie behind the assertion.	Please refer to response 7A-45 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.
7A-077	Energy Need	BESS	Batteries operate in a separate segment of the electricity market; the proposed energy storage system cannot be considered "associated development".	Please refer to response 7A-46 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.
7A-078	Other Environmental Matters	BESS	The safety and environmental concerns arising from battery development at this scale have not been appropriately considered, including through operation and transportation.	Please refer to response 7A-47 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.
7A-079	Glint & Glare	Aviation	The impact of glint and glare on aviation (e.g. RAF, airfields, gliding clubs), or other outdoor activities (e.g. horse riding, hunts) has not been thoroughly considered, as well as visibility from prominent roads.	Please refer to response 7A-48 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.
7A-080	Noise & Vibrations	Pollution	It is unclear from the information provided by WBSP what noise pollution will arise from the proposed West Burton Solar Project, either from electrical equipment (e.g. battery and inverter fans), or from wind noise / resonance from the configuration of large panel structures	Please refer to response 7A-49 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.

7A-081	Other Environmental Matters	Decommissioning	WBSP documentation provides little detail on the arrangements for decommissioning and recycling, nor the standards to which the developer would be held to at the end of the life of the project.	Please refer to response 7A-50 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.
7A-082	Other Environmental Matters	Decommissioning	It is evident form Financial Returns that neither WBSP nor its parent company Island Green Power have direct capital to support the estimated funds to develop the project or deal with the decommissioning	Please refer to response 7A-51 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.
7A-083	Other Environmental Matters	Sustainability	Any materials sourced by WBSP for the development should be truly sustainable, e.g. free of forced labour, where workers' safety is paramount, and where the full environmental implications are understood.	Please refer to response 7A-52 in WB8.1.2 The Applicant's Responses to Relevant Representations **[REP1-050]**.

2.3 Summary of Oral Submissions made at OFH1

7000 Acres – Summary of Oral Submissions made at OFH1 [REP1-084] [REP1A-023]

Reference	Theme	Issue	Summary of Issue Raised	Applicant's Response
7A-084	Energy Need	Statement of Need	This project comes down to three simple things: Need, Benefits and Impacts In terms of Need - we do not dispute, the need to decarbonise and that solar has a role to play. However, the first key question we would like the Examining Authority to address in this regard is: What is the specific need for large scale ground-mounted solar development in the UK? The UK Warehouse Association have found that by using only the largest 20% of commercial rooftops, this could double the UK's existing solar capacity, from 14GW to 28GW. And in May this year, Ecotricity published a report that estimated that from what they consider "suitable" domestic rooftops, a further 37GW of solar could be installed. These examples highlight that there is growing evidence that there is sufficient available	Please refer to the Applicant's responses within **WB8.1.5 Summary of Oral submissions made by Interested Parties at Open Floor Hearing 1 and the Applicant's Response [REP1-051]**, and **WB8.1.6 Written Summary of the Applicant's Oral Submissions & Responses at Issue Specific Hearing 1 and Responses to Action Points [REP1-052]**, in particular Section 4. Paragraph 7.6.3 of **WB7.11 Statement of Need [APP-320]** analyses the potential contribution of "brownfield" solar sites to the national need for solar generation. Brownfield sites, including rooftop and other community energy systems, are likely to grow in the UK and will make a contribution to decarbonisation of the UK energy system. However, **WB7.11 Statement of Need [APP-320]** concludes in Section 7.6, that on their own, brownfield developments are unlikely to be able to meet the national need for solar. Paragraph 8.5.10 and Section 8.5 more generally of **WB7.11 Statement of Need [APP-320]** describes and expresses agreement with Government's view that decentralised and community energy systems are unlikely to lead to

			rooftop solar capacity on suitable buildings for the UK to meet its solar requirements.	the significant replacement of large-scale infrastructure. The Applicant therefore supports Government's view that large scale solar must be deployed to meet the urgent national need for low-carbon electricity generation. Figure 8.2 of **WB7.11 Statement of Need [APP-320]** shows how solar is expected to work alongside other renewable and low-carbon assets to meet demand throughout the year. The inclusion of batteries as part of the Scheme will allow the Scheme to store energy when it is in abundance and release it to the grid when it is needed.
7A-085	Energy Needs	Benefits	In terms of Benefits - it is clear, that the developer has persisted in providing over simplistic and misleading information regarding the role solar power can play in the future of electricity supply. A fundamental principle for the electricity system to operate, is that supply must match demand at all times. This is a challenge as demand is highly variable, throughout the day and over the year. No solar scheme can power 100,000 homes - as the developer has repeatedly stated, not even a scheme as vast as this, because solar schemes do not address the fundamental requirement to	Please see the Applicant's Review of the Statement of Need as submitted as part of its ISH1 Written Summary of Oral Statement and Action Points **[REP1-052]**, especially Chapter 8, Page 3 of Appendix B of that document, which states that security of supply is needed at all times, and a mix of technology – including solar – is required to deliver security of energy supply in the UK. Table 7.1 of **WB7.11 Statement of Need [APP-320]**] shows the electricity generated per hectare by different low-carbon technologies. At the UK's average solar load factor (11%), solar generation produces much more energy per hectare than

			match electricity supply with demand in the moment. Solar is an intermittent form of electricity generation. It also has the lowest "load factor" of any renewable technology, which is the actual yield from the headline capacity figure for the scheme. For a 500MW capacity scheme, using UK Government energy statistics, solar delivers between 9 to 11% of this capacity on average, so, around 50MW in practice. However, increasingly, it is when power is produced which matters. Peak solar output is when demand is typically very low. And when the country needs most power, on a winter evening, solar produces nothing. What is worse, is that the electricity system is already finding itself with too much power on summer days – resulting in a phenomenon the National Grid calls "curtailment" – where excess renewable power is switched off, for which the generator concerned will be compensated. National Grid foresee curtailment will grow to between 50 to 90 TWh's of energy per year by	biogas, and generates a similar amount of energy as onshore wind. In relation to comments made about curtailment, the Applicant directs the ExA to Section 7.1 of **WB7.11 Statement of Need [APP-320]** describes that, according to Government's Energy White Paper (2020), meeting a possible doubling of electricity demand by 2050 "would require a four-fold increase in clean electricity generation with the decarbonisation of electricity increasingly underpinning the delivery of our Net Zero target." Figure 7-2 of the **WB7.11 Statement of Need [APP-320]**] shows National Grid's projections of installed generation capacity in the UK by 2030 and 2050. Not only is renewable generation capacity expected to increase between now and 2030, but so is flexible capacity (shown as orange in that Figure). A significant increase in UK electricity generation capacity is required to meet growing demand and deliver security of supply under different weather conditions. Because the weather is uncontrollable, more capacity is needed to ensure that demand can be met even when renewable output is low. 7000 Acres point to curtailment as a disbenefit of the scheme and incorrectly cites numbers from National Grid's Future Energy Scenarios document. The

			2030. It is an amount of electricity that is hard to fathom. The whole country currently uses around 300TWh in a year - wasting between 15 to 30% of the country's demand need, because of excess installed capacity that the system cannot handle. All this means that the contribution the system can make to the energy system is limited, and therefore the overall decarbonization benefits are also limited.	Applicant addresses these incorrect statements in three parts. Firstly, it is important to put in context, the current reasons for curtailment in the UK, and the prices paid to generators to curtail. Currently, curtailment is experienced on the UK's large-scale wind fleet. Much of this is due to transmission constraints: the transmission wires between the asset, where energy is generated, and the major points of consumption, do not have the capacity to transmit all of the generation. In the 12 months starting 1st October 2022 and ending 30th September 2023, National Grid data records metered wind to be 63TWh. Constraints due to location totalled 3.3TWh (5% off net generation) and constraints due simply to there being 'too much wind energy on the system' totalled 0.6TWh, or less than 1% of net generation. Chapter 9 of **WB7.11 Statement of Need [APP-320]** describes that the Scheme proposes to connect to a well connected section of the NETS which has available transmission capacity and is unlikely to cause the scheme to be curtailed. In the event that the Scheme was required to curtail, the inclusion of a BESS as part of the Scheme provides additional tools

				to the operator to store any excess generation for dispatch to the system when it is needed. Secondly, put simply, without the build out of large capacities of renewable generation, the UK may not be able to meet demand at times of low renewable output, potentially causing: - Power cuts (contrary to Government's aim to ensure security of supply); - Price spikes (contrary to Government's aim to shield consumers from volatile energy markets); and/or - Stand-by fossil fuel assets to generate (contrary to Government's aim to decarbonise the electricity system by 2035) The alternative approach, i.e. building out large capacities of renewable generation, meets Government's aims and provides opportunities for market approaches to manage curtailment if it occurs, and: - Use curtailed energy to support security of supply when demand is high; - Keep consumer costs down by capturing and storing energy when it is abundant (therefore cheap) and releasing it when it is needed;

				- Displace stand-by fossil assets by using stored energy as a low-carbon "peaking" energy resource, further supporting Government's aim for the electricity system to be operating with net zero carbon emissions from 2035. Section 8.7 of the **WB7.11 Statement of Need [APP-320]** describes four ways of diversifying renewable generation sources to maintain adequacy and minimise curtailment. One of these is the development of Energy Storage Systems. Many different technologies are anticipated to be used for energy storage in the future, and National Grid's FES discusses in detail the prospect of electrolysed hydrogen offering an effective inter-seasonal storage solution (e.g. p192 of FES (2023) NULL). The Applicant has included a proposal for a Battery Energy Storage System (BESS) as Associated Development to the main solar development. One of the benefits of the BESS is that it will be able to work as part of the Scheme, and other energy storage systems elsewhere connected to the UK's electricity system, to reduce curtailment, both specifically at the Scheme, and as an additional benefit, more widely.

				Thirdly, 7000 Acres have misrepresented the level of curtailment in National Grid's FES pathways. Data from FES (2023) Table FL.18 shows that average curtailment in the years 2031 – 2040 ranges from 31TWh ('Leading the Way') to 46.8TWh ('System Transformation') however a deeper dive into the data (via Table ES1 of the same report) shows that curtailment of solar generation is anticipated to be much lower, with an average annual curtailment 2031-2040 ranging from 2.4TWh - 2.7TWh. In summary, future curtailment, if/when it occurs, would be a 'good' problem for the UK power sector to have. It would show that large capacities of renewable generation have been built out to deliver low-carbon supplies to meet peak demand, delivering security of supply, meeting carbon reduction targets and reducing wholesale costs of energy. Further, the market signals associated with curtailment, will drive the development of consumer and/or supply side flexibility to make efficient use of abundant resource and drive further security of supply, decarbonisation and affordability benefits for consumers across the whole energy system.
7A-086	Energy Need	Benefits	Our second key question we would like to ensure the Examining Authority thoroughly covers is:	Section 3.3 of document **WB7.11 Statement of Need [APP-320]** specifically paragraphs 3.3.2, 3.3.5 and 3.3.11, describes the Government's view that

			To what extent can the proposed solar scheme truly contribute to the decarbonisation of the electricity system? In doing so, we would seek the Examining Authority to thoroughly understand and assess the potential role of this solar scheme, what it can contribute, and crucially, what problems it also causes for the future decarbonised energy system. This question is crucial, because these benefits will be weighed against the harms and consequences of the development, therefore, the developer must not be allowed to overstate and oversimplify the benefits of the proposed scheme.	large capacities of low-carbon generation will be required to meet increased demand and replace output from retiring (fossil fuel) plants, and that "a secure, reliable, affordable, Net Zero consistent system in 2050 is likely to be composed predominantly of wind and solar". This support for large scale solar as part of the 'answer' to net zero and energy security has been repeated in its Powering Up Britain published in March 2023. This point is reiterated in NPS EN-3 (November 2023) . Figure 7.1 of **WB7.11 Statement of Need [APP-320]** shows National Grid Electricity System Operator's projections of the capacity of solar generation required to deliver a net-zero consistent system, which, as stated in para. 7.2.10, are 25 – 42GW by 2030, and 57 – 92GW by 2050, compared to just 14GW today (Section 7.2). NPS EN-1 (November 2023), para 3.3.25, sets out Government's emerging policy position in favour of BESS: "Storage has a key role to play in achieving net zero and providing flexibility to the energy system, so that high volumes of low carbon power, heat and transport can be integrated." The decarbonisation calculations to show the extent the proposed scheme are set out within the **WB6.2.7_A ES Chapter 7 Climate Change [REP1-**

				012]. These calculations compare the existing emissions associated with energy generation to the offset provided by generating electricity with the renewable source.
7A-087	Soils and Agriculture	Loss of Agricultural Land	The final dimension is the Impact the scheme will have. Harm stems from the fact that solar, has an extremely low power density, which means that a ground-mounted solar scheme, of this capacity, uses a colossal amount of space. Using so much land has a tremendous, concentrated impact on the immediate area and its people. Consuming such huge areas of land, also puts a wider pressure on land use and on agricultural crop land in particular which is facing many pressures. The UK Climate Change Committee asserts we will need to lose some of this land to plant trees to sequester carbon and for energy crops. There are fears that climate change will change the yields of UK farmland and rising sea levels have the potential to have a further impact. All of which is before any renewed expansion of urban development is considered	**Table 7.1** of **WB7.11 Statement of Need [APP-320]** shows the electricity generated per hectare by different low-carbon technologies. At the UK's average solar load factor (11%), solar generation produces much more energy per hectare than biogas, and generates a similar amount of energy as onshore wind. Furthermore, paragraph 7.6.8 of **WB7.11 Statement of Need [APP-320]** states that: *"Draft NPS EN-3 includes an anticipated range of 2 to 4 acres for each MW of output generally required for a solar farm along with its associated infrastructure."* The Scheme delivers a large-scale solar generation asset which is consistent with this range. This demonstrates that the proposed location is a suitable site which will provide for an asset which is consistent with government's view of best practice ratios of land take and installed capacity. Agricultural land in the Sites is not lost to or degraded by solar farm development. As per paragraph 19.9.21 of the ES Chapter 19 [APP-057],

			In addition to this, there are growing demands to increase self-sufficiency of food production, because of food security concerns in the wake of rising global political instability. This is not about land that is Best and Most Versatile, or what land is 3a or 3b, (which are distractions frequently used by developers to deflect from the fundamental need to use our precious land resources efficiently). Quite simply, over committing agricultural land to such inefficient land use as ground-mounted solar, could very quickly become a cause for regret. But Harm also arises from the fact that, by proposing 4.5m high tracking panels, the Applicant has shown no sensitivity to the local area and its communities. Our third question to the Examining Authority is therefore: What are the impacts of the scheme, when considered both from the perspective of the immediate area, but also from a macro-level, that	there will be no loss of agricultural land quality or extent following decommissioning, and the Sites can continue in agricultural production through the operational phase of the solar farm, grazing sheep. The research referenced in paragraph 19.9.14 of the ES [REP-057] notes that reverting arable land to low input pasture below a solar farm will deliver similar soil carbon sequestration as the planting of woodland on the same site. It will also generate renewable power from the solar PV and can be used to graze sheep. Data published by Forest Research[1] (the Forestry Commission) shows that a solar farm in the UK can be expected to generate over ten times more energy per unit area than the best performing energy crop. Meeting renewable power generation needs from solar farms therefore uses considerably less land than any biofuel crop. Section 4.7 of **WB7.11 Statement of Need [APP-320]** summarises the Committee on Climate Change (CCC's) 2022 review of Government progress towards its 2050 Net Zero commitments: the UK's emissions targets are compliant with the Paris Agreement and

[1] Forest Research. Potential yields of biofuels per ha p.a.
https://www.forestresearch.gov.uk/tools-and-resources/fthr/biomass-energy-resources/reference-biomass/facts-figures/potential-yields-of-biofuels-per-ha-p-a/

			truly considers the wider sustainability impacts of consuming crop land at this scale?	the Net Zero strategy (and supporting strategies) to reach them are credible, however policies are not yet in place to drive the large programme of delivery required in the 2020s and tangible progress is lagging behind the policy ambition. The CCC's 2023 Progress Report to Parliament described a "lack of urgency in the delivery of decarbonisation in the UK". The summary, on page 14 of the report, was that the UK should stay firm on existing commitments to decarbonise, including a fully decarbonised electricity grid by 2035, and move to delivery. Section 3.3 of document **WB7.11 Statement of Need [APP-320],** specifically paragraphs 3.3.2, 3.3.5 and 3.3.11, describes the Government's view that large capacities of low-carbon generation will be required to meet increased demand and replace output from retiring (fossil fuel) plants, and that "a secure, reliable, affordable, Net Zero consistent system in 2050 is likely to be composed predominantly of wind and solar". This support for large scale solar as part of the 'answer' to net zero and energy security has been repeated in its recent NPS and Powering Up Britain, both published in November 2023 and March 2023 respectively.

				Table 7.1 of **WB7.11 Statement of Need [APP-320]** shows the electricity generated per hectare by different low-carbon technologies. At the UK's average solar load factor (11%), solar generation produces much more energy per hectare than biogas, and generates a similar amount of energy as onshore wind. The Applicant does not consider that the Scheme would result in food security impacts either alone or cumulatively. The UK annual balance of domestically produced food is sensitive to non-planning factors including weather and markets. The relevant assessment for policy purposes (and therefore decision-making purposes under the Planning Act 2008) is one that is based on the grade of the agricultural land, rather than its current use and the intensity of that use. In terms of key threats to UK food security, the Defra UK Food Security Report highlights that the main threat is climate change. Please see Table 19.2 and paragraphs 19.5.2 to 19.5.3 of **WB6.2.19 ES Chapter 19 Soils and Agriculture [APP-057].**
7A-088	Energy Need	Offshore Wind	There is a huge challenge to decarbonise the UK (and good progress is already being made), particularly with the closure of coal fired generation and the significant contribution by	Section 3.3 of document **WB7.11 Statement of Need [APP-320],** specifically paragraphs 3.3.2, 3.3.5 and 3.3.11, describes the Government's view that large capacities of low-carbon generation will be required to meet increased demand and replace output from

			renewable generation, especially from offshore wind. To decarbonize power, the challenges from here are in two main areas: • The first is about getting power to the right place. By far the largest source of the country's future energy will be Wind power – perhaps 50% or more, according to the National Grid. At a transmission level, it is essential this has the necessary grid infrastructure so it can be used. At a distribution level, we need to configure networks to enable the charging infrastructure to power electric vehicles and decarbonise transport. In the UK at present, there is a band wagon for large scale ground-mounted solar development, akin to a wild-west style gold rush, with over 130GW of solar currently in the National Grid queue for grid connections, which is a significant contributor to the problem of massive delays in the process of securing grid connections. The second challenge is about being able to flexibly produce clean energy, for when the wind doesn't blow, or the sun doesn't shine sufficiently to meet demand. This is about dispatchable low-or-no-carbon generation or inter-seasonal energy storage. These are the keys to decarbonisation.	retiring (fossil fuel) plants, and that "a secure, reliable, affordable, Net Zero consistent system in 2050 is likely to be composed predominantly of wind and solar". This support for large scale solar as part of the 'answer' to net zero and energy security has been repeated in its recent NPS and Powering Up Britain, both published in November 2023 and March 2023 respectively. Section 5.4 of **WB7.11 Statement of Need [APP-320]** describes why it is not likely that CCUS (the process to decarbonise carbon-intensive electricity generation) will play a significant role in reducing UK carbon emissions in the decade ahead, and also describes why nuclear generation will also not make a net positive contribution to carbon reduction over the same period. Yet Section 5.3 of **WB7.11 Statement of Need [APP-320]** describes the need for urgent progress in decarbonisation. Significant additional renewable generation capacity is therefore required to make progress in decarbonisation, both as dispatchable low-carbon technology developments continue, and on an enduring basis, to meet foreseen electricity demand growth.

			But you don't need to take the words of 7000Acres on this	
7A-089	Energy Need	Policy Regulation	Three major reports have been published this year that assess the decarbonization of the power sector in the UK and current progress towards delivering on that goal. In doing so, they describe the main challenges and the extent to which solar plays a role. These reports are from the UK Climate Change Committee (CCC), March 2023, the National Audit Office (NAO), March 2023 and by the Business, Energy and Industrial Strategy Committee (BEIS), April 2023 [Note: the energy portfolio of this department is now the responsibility of the Department for Energy and Net Zero (DESNZ)]	Section 4.7 of **WB7.11 Statement of Need [APP-320]** summarises the Committee on Climate Change (CCC's) 2022 review of Government progress towards its 2050 Net Zero commitments: the UK's emissions targets are compliant with the Paris Agreement and the Net Zero strategy (and supporting strategies) to reach them are credible, however policies are not yet in place to drive the large programme of delivery required in the 2020s and tangible progress is lagging behind the policy ambition. The CCC's 2023 Progress Report to Parliament described a "lack of urgency in the delivery of decarbonisation in the UK". The summary, on page 14 of the report, was that the UK should stay firm on existing commitments to decarbonise, including a fully decarbonised electricity grid by 2035, and move to delivery. Government is seeking 70GW of solar by 2035 across rooftop and ground-mount sites, as confirmed in Powering Up Britain (Energy Security Review) and the November 2023 NPS EN-1 and EN-3.
7A-090	Energy Need	Planning	Together, their most pressing concerns are:	The Applicant notes this comment and Section 9.3 of **WB7.11 Statement of Need [APP-320]** concludes that "the connection of the Scheme to the local NETS

			The need for overall co-ordination and planning of the energy system	will not cause any additional specific local or regional operability concerns either now or into the future".
7A-091	Energy Need	Offshore Wind	The resolution of grid connection issues – especially to deliver offshore wind generation	The Applicant notes this comment and notes that it is in possession of a grid connection offer (see **7.7 Grid Connection Statement [APP-316]**).
7A-092	Energy Need	Deployment	The inadequate pace of deployment of wind and nuclear power generation	Section 5.4 of **WB7.11 Statement of Need [APP-320]** describes why it is not likely that nuclear generation will make a net positive contribution to carbon reduction over the same period. Yet Section 5.3 of **WB7.11 Statement of Need [APP-320]** describes the need for urgent progress in decarbonisation. Significant additional renewable generation capacity is therefore required to make progress in decarbonisation, both as dispatchable low-carbon technology developments continue, and on an enduring basis, to meet foreseen electricity demand growth.
7A-093	Energy Need	Policy Regulation	The need to manage energy flexibility and intermittency of renewable energy sources Solar simply does not feature in the landscape of key challenges to be overcome for the UK to deliver on decarbonising the power sector. Existing rates of solar deployment are not an area of concern for any of these reports and are UK Climate	Please see the Applicant's Review of the Statement of Need as submitted as part of **its WB8.1.6 Written Summary of the Applicant's Oral Submissions & Responses to Actions at Issue Specific Hearing 1 (ISH1) [REP1-052]**, especially Chapter 8, Page 3 of Appendix B of that document, which shows that

			Change Committee stated these rates are already close to the annual capacity required to be installed to meet Government targets. This entirely undermines the call by Applicants for extensive acceleration of solar deployment through large-scale ground mounted solar, as being necessary to achieve the 70GW solar ambition. Such schemes are redundant.	there is significant policy support for large-scale ground mount solar in the UK.
7A-094	Energy Need	What are the impacts of the scheme, when considered both from the perspective of the immediate area, but also from a macro-level, that truly considers the wider sustainability impacts of consuming crop land at this scale?	What is worse, is that uncoordinated deployment of solar has the potential to interfere with efficient and effective decarbonisation by: • Exacerbating issues of excess renewable supply and curtailment, thereby increasing the ultimate cost of a decarbonised energy system. Competing for land that will be required for direct decarbonisation measures, through tree planting and restoration of peatlands. Providing additional "clutter" to an already overwhelmed queue of grid connection applications. Diverting skilled resources away from delivering on the key priority tasks for decarbonisation, e.g. offshore wind, new nuclear, carbon capture. NSIP scale solar farms are, in fact, a massive	Points on curtailment and the efficiency of land use for solar have been addressed in this document above in response 7A-002 and 7A-006.

			distraction from meeting the challenge of decarbonization. 7000Acres 5 We accept that we need solar, but we need to deploy solar in a way that acknowledges the limitations of its contribution in our country.	
7A-095	Energy Need	Rooftops	Wherever possible, solar should therefore be delivered where it can make its contribution with the fewest adverse impacts, such as on rooftops. It should not be ground-mounted on this scale	The Government has set a target of 70GW from solar from rooftop and ground-mount schemes by 2035. Paragraph 7.6.3 of **WB7.11 Statement of Need [APP-320]** analyses the potential contribution of "brownfield" solar sites to the national need for solar generation. Brownfield sites, including rooftop and other community energy systems, are likely to grow in the UK and will make a contribution to decarbonisation of the UK energy system. However, **WB7.11 Statement of Need [APP-320]** concludes in Section 7.6, that on their own, brownfield developments are unlikely to be able to meet the national need for solar. Paragraph 8.5.10 and Section 8.5 more generally of **WB7.11 Statement of Need [APP-320]** describes and expresses agreement with Government's view that decentralised and community energy systems are unlikely to lead to the significant replacement of large-scale infrastructure. The Applicant therefore supports

				Government's view that large scale solar must be deployed to meet the urgent national need for low-carbon electricity generation.
7A-096	Energy Need	Community Impacts	In conclusion, the developer must not be allowed to overstate and oversimplify benefits, and understate harms, for financial advantage. This proposed development, along with the other three in the West Lindsey District, have the potential to significantly harm and even decimate communities for decades, and in the worst case, all for schemes that could contribute very little to decarbonisation. It is essential that these decisions are right. This must not be all for fool's gold	Chapter 4 of **WB7.11 Statement of Need [APP-320]** sets out the UK's legal requirement to decarbonise and explains how that requirement has created an increased need and urgency to meet the UK's obligations under the Paris Agreement (2015) as detailed within para. 4.2.7. The chapter summarises the latest expert views on the urgency for and depth of low-carbon infrastructure needed to deliver the UK's Net Zero legal obligations, and demonstrates that there is an urgent need for the development of large-scale solar schemes. Paragraphs 6.2.17 to 6.2.19 of **7.5_A Planning Statement Revision A [EN010132/EX3/WB7.5_A]** explain that it is against this backdrop that NPS EN-1 paragraph 4.1.2 sets a presumption in favour of granting permission for energy NSIP projects. This is carried through to Draft NPS EN-1 at paragraphs 4.1.2 to 4.1.5. Section 6.2 **[EN010132/EX3/WB7.5_A]** sets out how the Scheme will meet the compelling need for renewable energy in accordance with relevant national planning policies. In summary, the Scheme would:

				• Deliver a large amount of renewable generation capacity (estimated 31,425,614 MWh over a 60- year assessed lifetime) (see para. 6.2.32) to deliver the Government's energy objectives and legally binding net zero commitments in line with the requirements of paragraph 1.1.1 of NPS EN-3 (2011) (see para. 6.2.3), paragraph 3.3.20 of NPS EN-1 (November 2023) (see para. 6.2.10), section 3.4 of NPS EN-1 (2011) and the National Infrastructure Strategy 2020; • Deliver a reduction of 3,981,049 tCO2e over the lifetime of the Scheme compared to if it did not go ahead (see para. 6.2.25) which would make a significant contribution towards reducing carbon emissions as required by paragraph 1.1.1 of NPS EN-1 (2011), paragraph 2.3.3 of NPS EN-1 (November 2023), the National Infrastructure Strategy 2020 and the Energy White Paper: "Powering our net zero future"; • Deliver in a timescale that is short in the context of the delivery of other forms of energy generation in line with the urgent need to decarbonise set out in paragraphs 3.3.5, 3.3.15 (see para. 6.2.4) and 3.4.5 of NPS EN-1 (see para. 6.2.1), Paragraph 2.3.3 (see para. 6.2.8) of NPS EN-1 (November 2023)

				and the National Infrastructure Strategy 2020; • Enable all consumers to benefit from the effect of low-marginal cost solar generation on reducing market prices, in line with the aim to provide affordable energy for consumers set out at Paragraph 2.3.3, Paragraph 2.3.6 and 3.3.20 of NPS EN-1 (November 2023) (see paras. 6.2.8, 6.2.9 and 6.2.10) ; • Help ensure security and reliability of energy supply in line with Paragraph 2.3.2 and 2.3.5 of the NPS EN-1 (November 2023). NPS EN-1 paragraph 3.2.3 (2011) and NPS EN-1 (November 2023) paragraph 3.1.2, acknowledge that it will not be possible to develop the necessary amounts of such infrastructure to deliver these benefits without some significant residual adverse impacts as explained at paragraph 6.2.20 **[EN010132/EX3/WB7.5_A].** Whilst it has not been possible for the Scheme to avoid all significant residual impacts, these have been identified within the **Environmental Statement [APP-039 to APP-061]** and have been minimised, where possible, through careful and sensitive design and detailed mitigation strategies.

				Section 6 of **7.5_A Planning Statement Revision A [EN010132/EX3/WB7.5_A]** demonstrates that when considered against national planning policies, the Scheme accords with the relevant policies, and with regard to specific policy tests, the substantial benefits of the Scheme are considered on balance to outweigh its limited number of significant residual adverse impacts. Therefore, it is considered that development consent for the Scheme should be granted.

2.4 7000 Acres and Parishes Joint Position

7000 Acres – Joint Position [REP1A-010]

Reference	Theme	Issue	Summary of Issue Raised	Applicant's Response
7A-097	Principle of the Development	Cumulative Development	Our Parishes represent the overwhelming majority local villages effected, where there is growing concern over the cumulative adverse impact these schemes will have on the region. To our knowledge, no Parish is in favour of the proposed developments. Our position is that we agree that climate change calls for action to decarbonise our economy.	The Applicant notes this comment.
7A-098	Energy Need	Solar Efficiency	However, we are concerned that the benefits the schemes can bring are being overstated and oversimplified by developers, because the role solar can play in decarbonisation is very limited: • In the UK, solar panels produce on average between 9% and 11% of their rated output – and they produce most of that power on sunny, summer days when we least need it. When demand is at its highest, on winter evenings, they produce nothing at all. • To keep the lights on, something else must produce power when solar is not producing, so for	A detailed assessment of the climate change impacts of the Scheme, including embodied carbon, has been completed as part of the Environmental Statement and can be found in **6.2.7_A ES Chapter 7 Revision A [REP1-012]**. This assessment shows that the emissions associated with the production of batteries and other equipment is outweighed by the positive effect of the energy savings of producing electricity by solar. Section 3.3 of document **WB7.11 Statement of Need [APP-320],** specifically paragraphs 3.3.2, 3.3.5 and 3.3.11, describes the Government's view that

			much of the year, that means relying on alternative sources, e.g. which may be low carbon (e.g. wind, hydro, nuclear), but may as easily be fossilbased (e.g. gas, oil, diesel) • The proposed solar projects make no material attempt to match when power is produced to when it is needed. They take up a huge amount of space for the limited contribution they can make to the electricity system, and therefore represent an extremely inefficient use of land. • To keep the lights on, something else must produce power when solar is not producing, so for much of the year, that means relying on alternative sources, e.g. which may be low carbon (e.g. wind, hydro, nuclear), but may as easily be fossilbased (e.g. gas, oil, diesel) In addition, the proposed battery schemes don't solve the problem: • Batteries help in a limited way, in that they can store a few hours of electricity; they are not capable of storing volumes of solar power from the summer to be used in the winter	large capacities of low-carbon generation will be required to meet increased demand and replace output from retiring (fossil fuel) plants, and that "a secure, reliable, affordable, Net Zero consistent system in 2050 is likely to be composed predominantly of wind and solar". Section 6.2 of **7.5_A Planning Statement Revision A [EN010132/EX3/WB7.5_A]** sets out how the Scheme will meet the compelling need for renewable energy in accordance with relevant national planning policies. Table 7.1 of **WB7.11 Statement of Need [APP-320]** shows the electricity generated per hectare by different low-carbon technologies. At the UK's average solar load factor (11%), solar generation produces much more energy per hectare than biogas, and generates a similar amount of energy as onshore wind. Furthermore, paragraph 7.6.8 of **WB7.11 Statement of Need [APP-320]** states that: "Draft NPS EN-3 includes an anticipated range of 2 to 4 acres for each MW of output generally required for a solar farm along with its associated infrastructure." The Scheme as proposed delivers a large-scale solar generation asset which is consistent with this range, as is described through

				paragraphs 4.2.1 to 4.2.3 of **6.2.4 Environmental Statement - Chapter 4 Scheme Description [APP-042]**. This demonstrates that the proposed location is a suitable site which will provide for an asset which is consistent with government's view of best practice ratios of land take and installed capacity. Figure 8.2 of **WB7.11 Statement of Need [APP-320]** shows how solar is expected to work alongside other renewable and low-carbon assets to meet demand throughout the year. The inclusion of batteries as part of the Scheme will allow the Scheme to store energy when it is in abundance and release it to the grid when it is needed.
7A-099	Soils & Agriculture	Food Security	We are also concerned that development on this scale will have serious adverse consequences, for the region and for the nation: • Food & Farming: Using arable land for solar will displace the production of existing crops, food, animal feed and energy crops. It makes no sense, from an environmental perspective or from a security of food supply perspective, to cease farming here and import more crops.	The key policy tests for the decision maker in respect of the Scheme's impact upon agricultural land are found in NPS EN-1 (2011), paragraph 5.10.8, and NPS EN-3 (November 2023), para. 2.10.30 . In summary, this requires that applicants should seek to minimise impacts on BMV land, being ALC Grades 1, 2 and 3a), ensure impacts should be considered against the measures set out under paragraphs 2.10.66 – 2.10.83 and 2.10.98 – 2.10.110 in NPS EN-3 (November 2023). NPS EN-1 (2011) paragraph 5.10.15 then states that the Secretary of State should give little weight to loss of ALC grades 3b, 4 and 5 agricultural land, while NPS EN-3 (November 2023), para. 2.10.145 requires the Secretary of State to ensure mitigation measures to

				minimise impacts on soils and soil resources are appropriately provided by the Applicant. This is addressed in **Appendix C** of **7.5_A Planning Statement Revision A [EN010132/EX3/WB7.5_A]**. The Applicant does not consider that the Scheme would result in food security impacts either alone or cumulatively. The UK annual balance of domestically produced food is sensitive to non-planning factors including weather and markets. The relevant assessment for policy purposes (and therefore decision-making purposes under the Planning Act 2008) is one that is based on the grade of the agricultural land, rather than its current use and the intensity of that use. In terms of key threats to UK food security, the Defra UK Food Security Report highlights that the main threat is climate change.
7A-100	Soils & Agriculture	Employment & Livelihoods	• Employment: Solar farms will destroy agricultural jobs, skills and livelihoods and create very few new skilled jobs or replace livelihoods. It is likely, there will be a net reduction in employment, in an area with relatively few opportunities. There will not be any economic benefit to the already hard-pressed communities affected.	The Applicant directs to the previous response made at 7A-07 in **WB8.1.2 The Applicant's Responses to Relevant Representations [REP1-050]**.

7A-101	Ecology & Biodiversity	Ecological impacts	• Wildlife & Habitat: No matter what precautions and assurances, it will not be possible to deliver and install millions of solar panels, pour thousands of tonnes of concrete, as well as containers with batteries and switchgear, plus miles of fencing, without significant damage and disruption to habitat.	The Applicant directs to the previous responses made at 7A-17 and 7A-45 in **WB8.1.2 The Applicant's Responses to Relevant Representations [REP1-050]**.
7A-102	Landscape & Visual Impact	Size & Scale of development	• Visual: The cumulative scale of the development is unprecedented, and the impact of such a development would change the character and nature of the area for 50 years or more, such a change has the potential to have a significant detrimental impact on the general health and wellbeing of residents.	The Applicant directs to the previous responses made at 7A-11 and 7A-12 in **WB8.1.2 The Applicant's Responses to Relevant Representations [REP1-050]**.
7A-103	Transport & Access	Disturbance	• Disturbance during construction: The impact of traffic during construction and decommissioning phases, in terms of road safety, noise, disruption, damage to roads is of great concern to residents owing to the volume and potential size of material being moved, particularly on the local small, inadequate road infrastructure.	The Applicant directs to the previous response made at 7A-14 in **WB8.1.2 The Applicant's Responses to Relevant Representations [REP1-050]**.
7A-104	Climate Change	Alternatives	We acknowledge the challenge climate change poses, and we are in favour of good solar development: • Solar should be deployed where there is little else that can be done with the space – such as	Paragraph 7.6.3 of **WB7.11 Statement of Need [APP-320]** analyses the potential contribution of "brownfield" solar sites to the national need for solar generation. Brownfield sites, including rooftop and other community energy systems, are likely to

			rooftops (in the UK only around 3% of households have solar panels) • To make that happen, planning should require solar on new-build commercial warehouses and domestic properties as an immediate priority, and a framework should be provided to support retrofitting of solar to existing buildings. • Where a solar development is considered at scale, it should be decided upon locally, not nationally – and any development must consider sustainability in its widest sense, including the impacts on sustainability of food production, sustainability of communities, impact on health and wellbeing.	grow in the UK and will make a contribution to decarbonisation of the UK energy system. However, **WB7.11 Statement of Need [APP-320]** concludes in Section 7.6, that on their own, brownfield developments are unlikely to be able to meet the national need for solar. Paragraph 8.5.10 and Section 8.5 more generally of **WB7.11 Statement of Need [APP-320]** describe and express agreement with Government's view that decentralised and community energy systems are unlikely to lead to the significant replacement of large-scale infrastructure. The Applicant therefore supports Government's view that large scale solar must be deployed to meet the urgent national need for low-carbon electricity generation
7A-105	General Comments	Opposing the Development	To conclude, our position is clear, we are against the proposed large-scale solar developments, because of their limited contribution to decarbonisation and the adverse consequences arising from using farmland in this way.	Section 3.3 of document **WB7.11 Statement of Need [APP-320],** specifically paragraphs 3.3.2, 3.3.5 and 3.3.11, describes the Government's view that large capacities of low-carbon generation will be required to meet increased demand and replace output from retiring (fossil fuel) plants, and that "a secure, reliable, affordable, Net Zero consistent system in 2050 is likely to be composed predominantly of wind and solar". Section 6.2 of **7.5_A Planning Statement Revision A [EN010132/EX3/WB7.5_A]** sets out how the Scheme will meet the compelling need for

				renewable energy in accordance with relevant national planning policies.

2.5 Agricultural Land Classification

7000 Acres – Agricultural Land Classification [REP1A-011]

Reference	Theme	Issue	Summary of Issue Raised	Applicant's Response
7A-106	Soils and Agriculture	Agricultural Land Classification	In June 2022 Island Green Power (IGP) issued their PEIR report covering the initial scope of the project including the sites of WB1, WB2, WB3, WB4, and the Substation adjacent to the existing West Burton Power Station. Within the PEIR report was Chapter 3.2 Agricultural Land Classification Report which included the Amet Property Report dated May 2022 Issue 5 prepared by James Fulton MRICS FAAV. In October 2022 IGP announced, for whatever reason, that WB4 was cancelled along with the Substation site which was relocated to WB3. PINS advice meeting dated 30 September 2022 already noted that WB4 had been removed from the scope of the project. In March 2023 IGP submitted the Application for West Burton Solar Project. Within the application is Appendix 19.1: Agricultural Land Quality, Soil Resources & Farming Circumstances which contains the Amet	Natural England is the Statutory Consultee for planning matters regarding agricultural land, including the best and most versatile agricultural land. Natural England experts in soils and Agricultural Land Classification (ALC) have reviewed the Applicants ALC assessment including the site data. In their Deadline 1A Submission **[REP1A-007]** Natural England note that *"Natural England are satisfied that the detailed ALC survey undertaken across the order limits is appropriate."*

			Property Report dated 14th February 2023 Issue 8 issued by James Fulton MRICS FAAV. Despite being issued some 5 months after the decision was made to reduce the scope of the project this report covers the original total scope of the project, including WB4. This is a fundamental flaw of the report considering the amount of time that IGP and Amet Property has had to reconsider this complete report and reduce its scope to cover only the land that is now proposed for the project. The Applicant has failed to recognise the importance of this document and its significant relevance to the application. As mentioned by Mr Phillips, partner of Pinsent Masons at the Resumed Preliminary Meeting held on the 8th November 2023, "It is quite extraordinary that the Local Impact Report has not yet been prepared. There was no need to wait for the Rule 6 letter". Similarly, there was no need for the applicant to wait for the commencement of the NSIP process to correct their submission to only cover the revised scope for the proposed project. We therefore request that the Examining Authority requires IGP to instruct Amet Property to resubmit	

			this document to show the scope of the project as now envisaged.	
7A-107	Soils and Agriculture	Soil Analysis	In comparing the original PEIR report to the latest submission for ALC, it appears that the WB4 change was made as a result of four lab tests carried out on samples 70, 71, 183 and 210 out of 254 samples taken. Two of these lab tests resulted in a change of the results from MCL to Calc MCL with One result changed from HCL to Calc HCL. The fourth result was retained as SL. May we request that the examiner asks Mr James Fulton whether he proposed the changes to the WB4 results as an outcome of these additional lab tests or whether he was instructed to change his report? The 7000 Acres Group argues that it is highly questionable that the results of 254 samples would change as a result of three different lab test results. A further round of lab tests should have been carried out on a different set of samples in order to verify this significant change. Furthermore these results should have been reflected in additional lab tests for the WB1, WB2 and WB3 sites. The group does not have confidence at all in the Agricultural Land Classification data published by	Of the four lab test results for the WB4 site referred to, three found the presence of naturally occurring topsoil calcium carbonate that was not observed in the field. At other locations the surveyor was able to detect carbonates in field and note where these were naturally occurring as opposed to lime applied to a field. For a narrow range of climatic conditions the presence of naturally occurring Calcium Carbonate can reduce an ALC soil wetness limitation by one grade or subgrade. It was only for the soil wetness limited land in West Burton 4 where laboratory analysis detected the presence of Calcium Carbonate that had not been recorded by field assessment. Natural England retain expert ALC assessors and have reviewed the Applicants ALC assessment. In their Deadline 1A Written Representation [REP1A-008] Natural England state that *"Natural England are satisfied that the detailed ALC survey undertaken across the order limits is appropriate. "* Claims of missing data are mistaken. Blank cells in the table are left where no such feature is present in that soil profile. Ownership of BMV land is not relevant to the conservation of BMV land through

			Island Green Power for the West Burton Solar Project (WBSP). DEFRA assessment of Best and Most Versatile (BMV) land anticipated a moderate likelihood of BMV land in this region (i.e. 3a and above). The IGP analysis contained within APP - 0308 only identifies the results as '6.14.10 On the Predictive BMV Land assessment (Figure 19.5) the Temple Oaks Renewable Energy Park and the Tillbridge Solar sites occupy predominantly Moderate Likelihood of BMV land (between 20% and 60% best and most versatile agricultural land) as for the West Burton Solar Project Order Limits'. Within APP-137 Environmental Statement, Appendix 19.1 Agricultural Land Quality, Soil Resources & Farming Circumstances March 2023 can be found the following analysis: 5.1.1 Detailed ALC surveys within the site found agricultural land in ALC Grades 2, 3a and 3b. The distribution of ALC grades within the site is shown on Figures 19.1, 19.2 and 19.3, with areas given in Table 21 below [EN010132/APP/WB6.4.19.1 - WB6.4.19.3]. See REP1A-011 for table.	the planning process as ownership and occupation of that land can change.

			When analysing the submitted ALC data in detail, contained in APP-137 Environmental Statement, Appendix 19.1 Agricultural Land Quality, Soil Resources & Farming Circumstances March 2023, the following inconsistencies and inaccuracies can be found: See REP1A-011 for table. The classification of some of the samples has been downgraded based upon allocating the samples to the Wetness category III criteria. The field capacity of the soils shows this categorisation can be very marginal. In addition to these records there are 96 samples with missing data in their field records or inaccuracies. A further 36 samples have inconsistencies in their field records. That is 216 records that require further investigation and adjustment out of a total of 829 samples i.e. 26% errors. The 7000 Acres Group questions the professional practices of the parties involved in these reports given the evidence provided. One significant element of Project Management is to check the data before publication. It is clear here that Amet Properties, Daniel Baird Soil Consultancy Ltd (Baird Soil) and the IGP Project Manager have all failed to carry out their professional due diligence responsibilities in this instance and therefore it	

			puts into question all of the judgements that they have reported within these documents. When these results and figures are compared to EN010132-000214-WB6.4.19.4 Figure 19.4 Farm Business Occupancy, it is clear that Farm Business C contains 73% BMV land and Farm Business D contains 61% BMV land and therefore, should be withdrawn from this application as they contain a majority of ALC Grades 1, 2 and 3a land. The draft National Policy Statement for Renewable Energy Infrastructure (NPS EN-3) reiterates that BMV crop land needs to be avoided where possible. When the updated report is provided by Amet Properties, it will demonstrate the details of percentage allocation of ALC grades across each of the related Farm Businesses, which will then in turn, confirm the inappropriate use of these fields for the proposed development. For other similar projects the Examining Authority has requested an ALC survey be carried out for the cable route in order to identify the Agricultural Land Classification for inclusion in the Soils Management Plan. We recommend that this is discussed with IGP and a response obtained for the West Burton Solar Project.	

2.6 Battery Energy Storage System Safety Concerns

7000 Acres – Battery Energy Storage System Safety Concerns [REP1A-012]

Reference	Theme	Issue	Summary of Issue Raised	Applicant's Response
7A-108	Other Environmental Matters	Battery Energy Storage Safety	The Outline Battery Storage Safety Management Plan does not identify and mitigate all the hazards associated with a BESS thermal runaway. Instead it primarily refers to BESS fires, which is a different chemical process. The Outline Battery Storage Safety Management Plan, ES Chapter 17: Air Quality, and Appendix 17.4 do not identify the toxic emissions that would be released in the event of a thermal runaway. The Applicant has failed to take account of the large volume of water required to contain a BESS thermal runaway. The on-site storage identified by the Applicant is insufficient for a major incident. The volume of water quoted is only sufficient to douse a thermal runaway in two Tesla car sized batteries	Following further discussions with Lincolnshire Fire and Rescue, the Applicant has revised the **WB7.9_A Outline Battery Storage Safety Management Plan (OBSSMP) [EN010132/EX3/WB7.9_A]** which should be read alongside **WB8.4.17.1 ES Addendum: Air Quality Impact Assessment of Battery Energy Storage Systems (BESS) Fire [EN010132/EX3/WB8.4.17.1].** Preparation and approval of the final Battery Storage Safety Management Plan, substantially in accordance with the **WB7.9_A Outline Battery Storage Safety Management Plan [EN010132/EX3/WB7.9_A]**, is secured through Requirement 6 in Schedule 2 to the draft DCO **[EN010132/EX3/WB3.1_C].** The revised OBSSMP commits to the following comprehensive safety audits at the detailed design stage. These consider the lifecycle of the battery system from installation to decommissioning. Risk assessment tools will be utilised together with detailed consequence modelling to provide a comprehensive site operations and emergency response safety audit. As stipulated in the OBSSMP, the BESS system selected at the detailed design stage will include

				integrated fire and explosion protection systems. Following industry good practice (e.g., National Fire Protection Association (NFPA) 855 2023) or based on 3rd party fire & explosion testing, gas venting systems will avoid build-up of explosive gases. A site-specific Emergency Response Plan will be developed for the BESS post consent based on national and international best practice measures. The battery system mitigation measures adopted in a final Battery Storage Safety Management Plan will reflect the latest BESS safety codes and standards applicable at that stage. Mitigation measures will be discussed and coordinated with Lincolnshire Fire and Rescue (LFR). A Failure Modes and Effects Analysis (FMEA) of the BESS (BS EN IEC 60812) will be conducted to lay the foundation for predictive maintenance requirements and complement the fault indicator capabilities of the Battery Management System (BMS) data analytics system. Comprehensive Hazard Mitigation Analysis (HMA) will be conducted by a BESS specialist independent Fire Protection Engineer following NFPA 855 (2023) guidelines and recommendations. Additional risk assessments likely to be conducted at the detailed design stage are Fire Risk Analysis (FRA), Explosion Risk Analysis (ERA), Hazard and

				Operability Analysis (HAZOP). BESS 3rd Party risk analysis is sometimes automatically provided by Tier one BESS manufacturers and / or BESS integrators. If the BESS system supplied differs from the specification considered for risk assessments and consequence modelling, then a full safety audit will be repeated for the new BESS system specification. These studies will be completed and signed off before construction commences. The primary toxic gas emission from lithium-ion battery (LIB) chemistries is Hydrogen Fluoride (HF). This is referenced in both the OBSSMP **[EN010132/EX3/WB7.9_A]** and **ES Appendix 17.4 BESS Fire Technical note [APP-136].** Lithium ferro phosphate (LFP) chemistry was selected as the worst-case example for explosion risk and toxic gas emissions due to the higher level of hydrogen produced by LFP cells compared to other LIB chemistries. At the detailed design stage, battery system specific consequence modelling will be provided to demonstrate that respondents will not be exposed to emission levels that exceed levels identified in ES Appendix 17.4 **[APP-136]**. The revised OBSSMP states that:

				In order to determine the volume storage of external water supplies for firefighting, NFCC guidance will be used at the indicative design stage which states provisional firefighting supplies "should be capable of delivering no less than 1,900 litres per minute for at least 2 hours." LFR will be able to view the selected BESS system fire test data and an independent Fire Protection Engineer will validate the final water supply requirements. A BESS design which may require direct LFR firefighting engagement tactics will not be selected for this facility. The actual site supply requirement will be decided at the detailed design stage. On top of this supply requirement of 20% to 30%, additional capacity should be allowed for storage in the water run-off retention facility (legislation requires 10%). The proposed additional capacity allows for potential increases to rainfall volume from climate change and reduces BESS fire water run-off pollution concerns from a fire. Site and BESS design principles and Emergency Response Plan (ERP) content will ensure that the LFR are expected to employ a defensive strategy i.e., only boundary cooling should be employed for cooling of adjacent BESS or associated supporting equipment. Water storage tanks designed to be used for firefighting will be located at least 10m away from

				any BESS enclosure. They must be clearly marked with appropriate signage. They will be easily accessible to FRS vehicles and their siting should be considered as part of a risk assessed approach that considers potential fire development/impacts. Outlets and connections should be agreed with LFR. Any outlets and hard suction points should be protected from mechanical damage (e.g., through use of bollards). The specific firefighting water runoff drainage and water capture design and locations will be finalised at the detailed design stage when the volume of water required is agreed with LFR. The design will allow for easy pollution analysis and the firefighting water can be tankered off site if polluted. Trapped water may be reused as a potential source of firefighting water. This follows the management plan process as detailed in 'Protocol for the disposal of contaminated water and associated wastes at incidents 2018'.
7A-109	Other Environmental Matters	Battery Energy Storage Safety	The National Fire Chiefs Council (NFCC) recommends a separation distance of 6m (National Fire Chiefs Council, 2022) between enclosures. ED Appendix 4.1 Engineering Drawings and Sections appear to show the battery containers closely packed. The spacing of the BESS	The original Outline Battery Storage Safety Management Plan (OBSSMP) submitted with the DCO Application **[APP-318]**) was published before the NFCC guidelines were released in April 2023. The updated OBSSMP **[EN010132/EX3/WB7.9_A]** now takes the NFCC guidelines into account.

			enclosures is critical in preventing a chain reaction. The current design does not meet the NFCC recommendations.	The NFCC guidance states: A standard minimum spacing between units of 6 metres is suggested unless suitable design features can be introduced to reduce that spacing. If reducing distances a clear, evidence based, case for the reduction should be shown. It should be noted that this NFCC guideline was based on FM DS 5-33 (2017) which was superseded in 2023 and spacing guidelines are now less than NFPA 855 guidelines (3m). 6m exceeds the NFPA 855 (2023) guidelines of 3m, considered safe practice if sufficient UL 9540A testing and/or 3rd Party Fire and Explosion testing heat flux data has validated that closer spacing does not increase explosion risks or fire propagation risk. The current concept design allows for 3m spacing and the Applicant will provide sufficient UL 9540A testing and/or 3rd Party Fire and Explosion testing heat flux data to LFR as part of the final safety management plan, or otherwise revert to the 6m spacing or the specific NFCC guideline at the time of detailed design stage. All test data to establish safe spacing will be validated by a BESS specialist independent Fire Protection Engineer and agreed with LFR. The parameters and design principles for the Scheme, including the BESS, are set out in **WB7.13_B**

				Concept Design Parameters and Principles [EN010132/EX3/WB7.13_B], which is secured through Requirement 5 in Schedule 2 to the DCO **[EN010132/EX3/WB3.1_C].**
7A-110	Other Environmental Matters	Battery Energy Storage Safety	The Applicant's Outline Battery Storage Safety Management Plan, paragraph 5.3 shows that "no less than 228,000 litres of water will be stored onsite. This is considerably less than the 5.5 million litres considered necessary by the Yorkshire Fire Brigade for a 50MW BESS. The BESS proposed for West Burton is approximately 3 times (although uncapped) the size of the Leeds application, where in the expert opinion of the Yorkshire Senior Protection Manager 5.5 million litres of water would be required (Yorkshire Fire and Rescue, 2023). During a thermal runaway, the surrounding area must be cooled to prevent the incident expanding. Therefore, the volume of water held on site must be proportional to the energy storage capacity of the BESS, not just the physical volume of the BESS. This is another reason why the storage capacity of the BESS must be capped, in order to ensure that the water held onsite is sufficient for cooling a thermal runaway. The Applicant's Battery Safety Management Plan does briefly use the term thermal runaway in paragraph 2.3.2 but then	The Applicant has revised the **WB7.9_A Outline Battery Storage Safety Management Plan (OBSSMP) [EN010132/EX3/WB7.9_A]** which clearly states that if a dedicated automatic water-based system is provided within each BESS enclosure this will be designed to control or fully suppress a fire, without the direct intervention of LFR. In order to determine the volume storage of external water supplies for firefighting, NFCC guidance will be used which states provisional firefighting supplies "should be capable of delivering no less than 1,900 litres per minute for at least 2 hours." LFR will be able to view the selected BESS system fire test data and an independent Fire Protection Engineer will validate the final water supply requirements. A BESS design which may require direct LFR firefighting engagement tactics will not be selected for this facility. Site and BESS design principles and ERP content will ensure that the LFR are expected to employ a defensive strategy i.e., only boundary cooling should be employed for cooling of adjacent BESS or associated supporting equipment.

			concentrates on firefighting, which is a different chemical process.	
7A-111	Other Environmental Matters	Battery Energy Storage Safety	The draft DCO Work No. 2 (a) identifies the battery enclosure as being "either one container or multiple containers joined to each other, mounted on a reinforced concrete foundation slab or concrete piling;". The National Fire Chiefs Council (NFCC) recommends a separation distance of 6m (National Fire Chiefs Council, 2022) between enclosures. ES Appendix 4.1 Engineering Drawings and Sections appear to show the battery containers closely packed. The spacing of the BESS enclosures is critical in preventing a chain reaction. The current design does not appear to meet current safety guidance. This is in conflict with the statement made in the Outline Battery Safety Management Plan paragraph 4.1, where it states " The BESS will be designed to address prevailing industry standards and good practice at a time of design and implementation. " In the Applicant's Outline Battery Safety Management Plan they do not reference the National Fire Chiefs Council Guidance, which is a serious omission.	The original Outline Battery Storage Safety Management Plan (OBSSMP) submitted with the DCO Application **[APP-318]** was published before the NFCC guidelines were released in April 2023. The updated OBSSMP **[EN010132/EX3/WB7.9_A]** now takes the NFCC guidelines into account. The NFCC guidance states: A standard minimum spacing between units of 6 metres is suggested unless suitable design features can be introduced to reduce that spacing. If reducing distances a clear, evidence based, case for the reduction should be shown. It should be noted that this NFCC guideline was based on FM DS 5-33 (2017) which was superseded in 2023 and spacing guidelines are now less than NFPA 855 guidelines (3m). 6m exceeds the NFPA 855 (2023) guidelines of 3m, considered safe practice if sufficient UL 9540A testing and/or 3rd Party Fire and Explosion testing heat flux data has validated that closer spacing does not increase explosion risks or fire propagation risk. The current concept design allows for 3m spacing and the Applicant will provide sufficient UL 9540A testing and/or 3rd Party Fire and Explosion testing

			The Applicant uses the term "thermal runaway" sparingly in the document. They prefer to use the term "fire", which the evidence shows is not the main cause of major BESS incidents, or the major hazard. Their terminology might be due to a lack of comprehension of the issues, or to downplay the foreseeable risk from a thermal runaway. In Appendix 17.4: BESS Fire Technical Note, the Applicant does not take due regard for the risks associated with a BESS of the size proposed. In particular, their dismissive statement in 4 (2) is not supported by numerous cases worldwide, including the 20MW example in Liverpool: "A BESS fire would only produce a short-term impact in terms of surrounding environment;" Evidence demonstrates that lethal concentrations of emissions are produced in BESS thermal runaways (Larsson F, 2017). Therefore, the Applicant's assessment must take account of these real-world examples.	heat flux data to LFR as part of the final safety management plan, or otherwise revert to the 6m spacing or the specific NFCC guideline at the time of detailed design stage. All test data to establish safe spacing will be validated by a BESS specialist independent Fire Protection Engineer and agreed with LFR. The fire impact assessment of the BESS has been revised based on the latest LFP BESS fire test data and information (made available in October 2023), and the assessment in **WB8.4.17.1 ES Addendum: Air Quality Impact Assessment of Battery Energy Storage Systems (BESS) Fire [EN010132/EX3/ WB8.4.17.1]** submitted at Deadline 3. The BESS fire assessment methodology, including pollutants considered, and air quality standards and guidelines for the protection of human health, workers and first responders utilised within the assessment, are the same ones used for the Cottam Solar Project that have been approved by the UK Health Security Agency . BESS fire test emission data from several recent full scale burn tests incorporating LFP battery modules demonstrated that a '2 Rack BESS cabinet system (750 kWh)' would generally burn out in 2 – 8 hours. Therefore, short-term impacts against relevant UK

				air Quality Standards for the protection of human health, and both long-term (8-hours) and short-term (15-minutes) impact against relevant British occupational exposure limits for the protection of the health of workers have been assessed. Therefore, the revised BESS fire impact assessment has used latest LFP full scale burn test to represent real-world examples.

2.7 Glint and Glare

7000 Acres – Glint and Glare [REP1A-013]

Reference	Theme	Issue	Summary of Issue Raised	Applicant's Response
7A-112	Glint and Glare	Glint and Glare	The Applicant is required to demonstrate that the impact of glint and glare is minimal. The Applicant has not taken account of actual observer heights, such as from the upstairs windows of a residence, so underestimating the impact of glint and glare. The Applicant has chosen to define glare as having a high impact when an observer is exposed to glare for more than 60 minutes per day or 3 months per year. It is standard practice to use an exposure criteria of 30 minutes per day or 30 hours per year. Using the Applicants chosen glare criteria, they grossly underestimate the effect of glare on observers. The Applicant has not taken full account of the cumulative effect of glint and glare, in accordance with Advice Notice Seventeen. Instead, the Applicant appears to confuse cumulative effects with concurrent effects. The Applicant has used qualitative criteria, under the guise of "professional judgement", to minimise	Visibility from top floors including residential properties has been taken into consideration. Impacts upon observers located on the ground floor, which is typically the main living space, have a greater significance with respect to residential amenity (see section 7.1 of **WB6.3.16.1 ES Appendix 16.1 Solar Photovoltaic Glint and Glare Study [APP-132]**). The cumulative assessment shows that no significant cumulative impacts are predicted. This is either because concurrent visibility is not possible or because the separation distance is significant enough to reduce the impact to low (see section 8 of **WB6.3.16.1 ES Appendix 16.1 Solar Photovoltaic Glint and Glare Study [APP-132]**). No process for determining and contextualising the effects of glint and glare is provided for assessing the impact of solar reflections upon surrounding roads and dwellings. Therefore, the approach used in the **WB6.3.16.1 ES Appendix 16.1 Solar Photovoltaic Glint and Glare Study [APP-132]** determined whether a reflection from the proposed solar development is geometrically possible and

			the impact of glare on local residents and road users. Quantitative criteria can be applied, as in one of the references they cite (FAA, 2015). The Applicant has used vegetation and "opaque fencing" as the sole means of mitigation. No account has been taken of the time required for vegetation to grow. No detail of "opaque fencing" has been supplied or is considered elsewhere in the EIS. The Applicant has not taken account of receptors with common eyesight conditions. The Applicant has used Google Earth to conduct a desktop assessment of screening. This does not provide a valid assessment of the actual screening available, as rural views on Google Earth are frequently out of date, and certainly will not take account of seasonal variations in vegetation. Furthermore, the Applicant does not appear to have considered the vegetation being removed during construction. The Applicant takes no account of the impact on livestock and equestrian activities, which are a feature of this area. The Applicant dismisses the loss of amenity caused by glare.	then compared the results against the most relevant guidance/studies to determine whether the reflection is significant (see Appendix A of **WB6.3.16.1 ES Appendix 16.1 Solar Photovoltaic Glint and Glare Study [APP-132]**). The methodology for a glint and glare assessments is as follows: • Identify receptors in the area surrounding the solar development; • Consider direct solar reflections from the solar development towards the identified receptors by undertaking geometric calculations; • Consider the visibility of the panels from the receptor's location. If the panels are not visible from the receptor then no reflection can occur; • Based on the results of the geometric calculations, determine whether a reflection can occur, and if so, at what time it will occur; • Consider both the solar reflection from the solar development and the location of the direct sunlight with respect to the receptor's position; • Consider the solar reflection with respect to the published studies and guidance; • Determine whether a significant detrimental impact is expected in line with the process presented in Appendix D of **WB6.3.16.1 ES**

				Appendix 16.1 Solar Photovoltaic Glint and Glare Study [APP-132] The quantitative FAA criteria is used to solely assess aviation activity and there is no quantitative criteria established for assessing the other identified receptors. The Pager Power methodology has been produced in line with industry best practice and stakeholder consultation, e.g. with Network Rail and National Highways. Vegetational screening is proposed. Whilst this screening is maturing, opaque fencing will be implemented in the interim to instantly remove significant effects. See section 7 of **WB6.3.16.1 ES Appendix 16.1 Solar Photovoltaic Glint and Glare Study [APP-132].** The Applicant is not aware of any evidence that the impacts of glint or glare have are higher for those observers with common eyesight conditions. Google Earth images used in **WB6.3.16.1 ES Appendix 16.1 Solar Photovoltaic Glint and Glare Study [APP-132]** are dated December 2021. **WB6.3.16.1 ES Appendix 16.1 Solar Photovoltaic Glint and Glare Study [APP-132]** is a desk-based assessment and no site survey has been carried out. However, this assessment was likely carried out as part of the landscape assessment.

				The desk-based determination of screening level is conservative, meaning where it cannot be reliably determined that sufficient screening is present, it is assumed to be insuffcient. The Applicant is not aware of any evidence that glint and glare can affect livestock and equestrian activities. Residential amenity has been assessed within Section 7.1 of **WB6.3.16.1 ES Appendix 16.1 Solar Photovoltaic Glint and Glare Study [APP-132].** No significant impacts have been identified after analysis. Mitigation is proposed and interim screening will be implemented before planting is established where necessary.

2.8 Equality Impact Assessment

7000 Acres – Equality Impact Assessment [REP1A-014]

Reference	Theme	Issue	Summary of Issue Raised	Applicant's Response
7A-113	Socioeconomics	Equality Impact Assessment	1. We believe the document Equality Impact Assessment March 2023 EN010132 Reference: APP/WB7.12 has failed to set out its purpose. It has not identified the real issues around how this and other schemes will affect health and wellbeing for the residents for the next 40 years during its operational cycle (our main concern). 2. The Act is very clear that vulnerable groups are considered properly, and that reasonable adjustments are made and that exception planning is in place. As to the assessment of the Equality effect within the document, we do not believe that the author understands what is required, nor do they understand rural issues which in itself leads to issues around health inequality. 3. Using areas for consideration as a justification for this assessment in no way negates whether or not they have	The Applicant has assessed impacts on socio-demographic receptors, including age and disability (as protected characteristics) in **Section 18.7 of WB6.2.18 ES Chapter 18 Socio Economics Tourism and Recreation [APP-056].** No significant adverse impacts to these groups as a result of the Scheme, or as a result of the cumulative NSIPs assessed have been concluded, as set out in Table 5.1 of **WB7.12 Equality Impact Assessment [APP-321].** An assessment of the effects of the Scheme on the general population and vulnerable groups can be found in **WB6.2.21 ES Chapter 21 Other Environmental Matters [APP-059].** **WB6.2.18 ES Chapter 18 Socio Economics Tourism and Recreation [APP-056]** describes and identifies the environmental effects arising a result of the Scheme in relation to population, economic, business and tourism indicators. It has utilised qualitative and quantitative data to establish the baseline conditions in the Local Impact Area. This has taken age demographics into account based on 2021 Census data, and long-term disability statistics from 2011 and 2021 Census data, Office

				identified those vulnerable groups (the protected characteristic groups) to show how they will be affected. Quantitative and qualitative data needs to be obtained and analysed to assess whether the impact is a concern. An example would be to find out how many people in our community are disabled from long term mental health, or how many people have learning disabilities, the proportionate of military veterans who have Post Traumatic Stress Disorder, many live in our community and who may benefit from rural space as part of their rehabilitation. Those with sensory impairment such as those who are blind, have heightened hearing so when considering noise impacts in our community this is important. The environment should be taken into consideration when assessing disability. Who are the other hard to reach groups (Travelling Community, temporary workers). This is the problem of having one single Environmental Impact Assessment for each scheme and not one for all the schemes which would have necessitated a Health Impact Assessment	for Health Improvement and Disparities (OHID) data from 2020-21 (baseline data for JSNAs), Department of Work and Pension statistics, and 2019 Indices of Multiple Deprivation statistics to establish a suitable level of baseline data. The Applicant is confident that the baseline data collected for assessment, sources consulted, and the breadth of receptors assessed cover a broad enough range of health and wellbeing effects, including in regard to age and disability as protected characteristics, to ensure the assessment has been suitably well-informed. Section 5 of **WB7.12 Equality Impact Assessment [APP-321]** sets out the assessment of equality effects arising from the Scheme on groups with protected characteristics under the Equality Act 2010. Although not identified explicitly, Gainsborough is an area within the Local Impact Area with very high rates of deprivation with regard to suitable income, access to employment, and education and skills attainment. The Applicant has therefore considered this and resultantly this has contributed to the determination that access to employment and access to education are high sensitivity receptors in the Local Impact Area. This is set out in Section 18.5 of **WB6.2.18 ES Chapter**

			and therefore Public Health and the NHS would have been consulted to obtain data around how these schemes would have impacted those with protected characteristics. The data around this is essential to mitigate if there are concerns. This is not the case in their Equality Impact assessment document. The impact of these schemes has the potential to widen health inequalities which is a concern. A HEAT tool should have been requested (Health Equity Assessment Tool) to help identify these inequalities. This has the potential to impact on the NHS Core20plus5 programme within the NHS (see next page) 4. A major driver of health inequality in rural areas is exclusion, marginalisation and lack of social connection. This can be felt by certain groups such as LGBT, those divorced, single parents, or people living alone. Figures from a study on Gainsborough and surroundings referenced in the written representation paper, carried out by West Lincolnshire	**18 Socio Economics Tourism and Recreation [APP-056].** Socio-economic status is not in itself a protected characteristic as defined by the Equality Act 2010, although the Applicant is conscious of the correlation between disadvantaged areas and higher rates of disability. This has therefore been considered in the assessment of impacts from the Scheme in **WB6.2.18 ES Chapter 18 Socio Economics Tourism and Recreation [APP-056].** The assessment outcome is that there is not anticipated to be any significant effects with regard to disability as a result of the Scheme. This has also been affirmed through the conclusions used in Section 5 of **WB7.12 Equality Impact Assessment [APP-321].** The objective of the **WB7.12 Equality Impact Assessment [APP-321]** is to assist the Secretary of State in their duty to have regard to the Public Sector Equality Duty under the Equality Act 2010 when making the decision to grant a DCO for the Scheme. Article 8 of the Human Rights Act 1998 protects private and family life, home and correspondence. Interference with this right can be justified if it is in accordance with law and is necessary in the interests of, among other things, national security,

			CCG (2017), showed that the number of pensioners living alone was high at 28.6%. 5. Bordering this scheme and the other schemes is Gainsborough. Two wards have significant deprivation and have not been considered in the wider assessment when looking at the deprivation for West Lindsey. We consider this is important within the Equality Impact Assessment. 6. There is reference to the Public Sector Equality duty, however no consideration has been paid to the impact on Human Rights. Article 8 of the Human Right Act states, there is a right of respect for private and family life. It is recognised that this right might be restricted under certain legitimate aims such as national security. This should be balanced by the legitimate protection of health and morals. The latter point is important as there is a feeling that financial greed has become the driver where investors are placing their claims over society and its right, especially rural communities, under the umbrella of climate change. It is stated that interference around this legitimacy must	public safety or the economic wellbeing of the country. The **WB4.1 Statement of Reasons Revision A [APP-019]** considers the interaction of the compulsory acquisition powers sought in the DCO, against the relevant articles in the Human Right Act 1998, including Article 8. In respect of Article 8, paragraph 9.1.9 of [AS-013] concludes that: "In relation to Article 8, the Order limits do not include, and the Scheme does not require, the outright acquisition of any residential dwelling-houses. Consequently, as dwelling-houses will not be directly affected, it is not anticipated that the Convention rights protected by Article 8 will be infringed. In the event that such rights were to be infringed, such interference would be justifiable on the basis that it would be lawful and in the public interest." The Applicant has assessed the impacts of the Scheme on the visual impacts of the landscape and wider area in **WB6.2.8 ES Chapter 8 Landscape and Visual Impact Assessment [APP-046].** The Applicant does not anticipate for the Scheme to have a direct impact on community connectivity, accessibility, access to community facilities or healthcare. No significant impacts on transport

			be necessary (not just reasonable), however, it should be "proportionate", that is, not more than is needed to achieve the aim desired. What is taking place in this area is already way over what any community should endure (cumulative effect), and this would not meet the FREDA principles particularly around fairness and autonomy. 7. There is a real concern that these schemes will fragment and further marginalise our community, break down established networks, leaving a more vulnerable ageing population with real risk of increasing loneliness and social isolation. The PHE paper, "An evidence summary of health inequalities in older populations in coastal and rural areas", provides evidence which indicates that mental health is an issue in rural areas as well as neurological issues e.g. Multiple Sclerosis which is classified as one of the disabled conditions. It lists the main drivers of inequalities to include social exclusion and isolation. This needs to be understood more in the context of the document. Fuel poverty and financial difficulties are a real	networks are assessed in **WB6.2.14 ES Chapter 14 Transport and Access [APP-051].** The Applicant is cognisant of the significance of the countryside for physical and mental wellbeing and as such, likely impacts on the desirability and use of recreational facilities in the countryside, such as public rights of way, have been assessed in Section 18.7 of **WB6.2.18 ES Chapter 18 Socio Economics Tourism and Recreation [APP-056].** The likely anticipated impacts on the recreational use of the River Trent during construction are short-term moderate-minor adverse (para. 18.7.64) and during operation are long-term minor adverse (para. 18.7.109). The impacts on the Trent Valley Way path are medium-term moderate-minor adverse during construction (Table 18.15), and long-term moderate-minor adverse during operation (Table 18.20). None of these effects are significant **[APP-056].** That notwithstanding, the worst-case cumulative effect on the Trent Valley Way path during construction is a peak cumulative short to medium-term temporary moderate adverse effect (para. 18.10.31). This therefore would be a significant effect **[APP-056]**. The purpose of **WB7.12 Equality Impact Assessment [APP-321]** is to identify where these effects would have a disproportionate or differential effect on groups of people on the

			issue in rural communities. It is well recognised that green space benefits rural populations and the very reason people retire to rural areas, therefore there tends to be a increase of an ageing population in rural areas as a result. 8. There is guidance around the protective characteristics as laid down in the Equality Act 2010 and these principles should be followed. Not much of this has been demonstrated within this submission. Recognising these impacts would have improved the section on health and wellbeing and highlighted important issues that our communities would face for the next 40 years, namely mental health, social care issues and widening health inequalities. 9. We feel this should be highlighted to the Secretary of State and that a full Health Impact Statement should be requested across all the schemes (cumulative affect). 10. Please refer to our submission on health and wellbeing.	grounds of their protected characteristics as defined by the Equality Act 2010. The EqIA concludes that the Scheme will not result in differentiated or disproportionate effects on groups with the protected characteristics of age or disability. The **WB7.12 Equality Impact Assessment [APP-321]** assesses the effects of the Scheme on persons with protected characteristics as defined by the Equality Act 2010. The Applicant is confident that the assessment of health and wellbeing in **WB6.2.18 ES Chapter 18 Socio Economics Tourism and Recreation [APP-056]** provides sufficient information upon which the conclusions reached in **WB7.12 Equality Impact Assessment [APP-321]** are made. **WB7.12 Equality Impact Assessment [APP-321]** draws on the assessment of effects in the **Environmental Statement [APP-038 to APP-061].** As such, cumulative effects from the Scheme and other relevant NSIPs have been considered within the assessment.

2.9 Human Health and Wellbeing

7000 Acres – Human Health and Wellbeing [REP1A-015] [REP1A-018]

Reference	Theme	Issue	Summary of Issue Raised	Applicant's Response
7A-114	Human Health	Human Health and wellbeing	Health and wellbeing has been described more in terms of construction and decommissioning, with very little substance as to the forty-year gap, that being the operators cycle where potentially the biggest impact will be to the health and wellbeing of the people that live and work in Gainsborough and its surroundings (Local Impact Area). The definition of health and wellbeing is important to understand within the context of this written representation.	Human health and wellbeing impacts from the Scheme's operational lifetime on the Local Impact Area have been assessed primarily in **WB6.2.18 ES Chapter 18 Socio Economics Tourism and Recreation [APP-056]** at para. 18.7.71 to 18.7.117, with cumulative impacts assessed at para. 18.10.33 to 18.10.55. No significant effects to human health and wellbeing have been assessed for the operational lifetime of the Scheme in isolation, or when considered cumulatively. Direct human health impacts arising from the Scheme have been assessed throughout the ES. No significant effects during the operational lifetime of the Scheme have been identified, and therefore have not been included in the conclusions set out in Section 21.5 of **WB6.2.21 ES Chapter 21 Other Environmental Matters [APP-059]**.
7A-115	Human Health	Legislation and Policy	Much of the guidance is around urban development and not much is in place to guide the issues faced in rural development around health and wellbeing. The Equality Impact Assessment for this scheme written for the applicant has not highlighted the potential	The Applicant notes this comment. **WB7.12 Equality Impact Assessment [APP-321]** signposts to Section 21.5 of **WB6.2.21 ES Chapter 21 Other Environmental Matters [APP-059]** which identifies a short-term moderate adverse effect during construction of the Scheme, and no adverse

			health and wellbeing issues to be faced by this scheme and the others (cumulative) on the people of Gainsborough, and surroundings (Local Impact Area). The Health and Social Care Act of 2022, provides the foundations to improve health outcomes, which brings together the NHS, Public Health and Social Care at a local level with the hope that this will tackle health inequalities, which should have been highlighted by the Equality Impact Assessment. A Health Impact Assessment would have enabled the applicant to obtain better health related data which would highlight potential health and wellbeing issues as a consequence of this and the other schemes. There is potential to widen health inequalities?	cumulative effects. The Applicant directs the commentors to Section 18.7 and 18.10 of **WB6.2.18 ES Chapter 18 Socio Economics Tourism and Recreation [APP-056]** wherein respectively the human health and wellbeing impacts from the Scheme considered in isolation, and cumulatively, are assessed. This assessment covers physical health, mental health and wellbeing, deprivation, and access to recreational facilities. A separate Health Impact Assessment was not required at the EIA Scoping stage, and has not been requested by any statutory body relating to public health.
7A-116	Socio-Economics, Tourism and Recreation	Equality Impact Assessment	Deprivation This DCO document fails to recognise Gainsborough town as the four LSOAs (Local Authorities and Lower Super Output Areas) within West Lindsey District which is in the top 10% most deprived LSOAs in England. This scheme is close to this town and is inextricably linked to it, and therefore this document is failing in its duty to understand how the scheme will directly impact on human health and	Impacts on the local socio-demographic environment across the Scheme's construction, operation, and decommissioning have also been assessed in Section 18.7 of **WB6.2.18 ES Chapter 18 Socio Economics Tourism and Recreation [APP-056]**. This includes assessment of the existing resident demographic profile, access to primary healthcare, population health and wellbeing, deprivation, and skills and qualifications. Subject to mitigation and enhancement measures as set out in Section 18.8 **[APP-056]**, the Scheme is not

			wellbeing as part of its surroundings. This has the potential to widen health inequalities. This was highlighted in the Director of Public Health report 2022 as an urban industrial centre with high levels of economic inactivity and low social mobility. Two papers written for the energy sector state that these solar energy farms are more likely to be passed in areas of deprivation and where communities of lower social capital exist.	anticipated to have any significant adverse impacts on the socio-demographic environment. The Scheme is however anticipated to have significant beneficial effects on access to employment (para. 18.8.12) and education (para. 18.8.13) as measures indices of deprivation during construction. Data at a settlement-level grain has been used to determine the sensitivity of receptors including indices of deprivation and access to primary healthcare. Although not identified explicitly, Gainsborough, for example, is an area within the Local Impact Area with very high rates of deprivation with regard to suitable income, access to employment, and education and skills attainment, which has contributed to the determination that access to employment and access to education are high sensitivity receptors. Whilst academically interesting, the Applicant does not consider that the conclusions in the research papers referred to can directly be attributed to the Scheme. The Applicant does however suggests that where the researchers have highlighted existing energy-producing areas are likely to be of higher deprivation, at least some of the correlation may be as a result of these areas being located where grid capacity for NSIPs are more likely to be found.

				The Applicant however strongly refutes the implication made by 7000 Acres **[REP1A-018]** that there is a deliberate attempt to locate the Scheme in an area of higher deprivation to limit public engagement, action, or influence.
7A-117	Socio-Economics, Tourism and Recreation	Methodology	Qualitative data The only qualitative date provided was outdated ONS (Office of National Statistics) data from 2011. We argue that the only way to obtain this data is through a widened qualitative feedback survey following a well-informed process. This would highlight whether or not there are issues around the impact of health and wellbeing on how this scheme makes us feel emotionally, physically and mentally. Much of this is subjective and needs exploring	**WB6.2.18 ES Chapter 18 Socio Economics Tourism and Recreation [APP-056]** has utilised qualitative and quantitative data to build an overall picture of the baseline conditions present in the Local Impact Area. ONS data from the 2011 Census has been used where comparable data from the 2021 Census had not been published at the point of the ES being submitted. The Applicant is confident that the baseline data collected for assessment, sources consulted, and the breadth of receptors assessed cover a broad enough range of health and wellbeing effects to ensure the assessment has been suitably well-informed.
7A-118	Socio-Economics, Tourism and Recreation	Methodology	Physical, mental and social Rural communities on the whole tend to be healthier than urban. However, rural areas tend to have much older people with a higher life expectancy. There is natural outward migration of younger people from rural communities, and with schemes like this making it less attractive for young people to live and settle in, because of field industrialisation. Areas could be left with	The Applicant notes these comments. **WB6.2.18 ES Chapter 18 Socio Economics Tourism and Recreation [APP-056]** has utilised qualitative and quantitative data to build an overall picture of the baseline demography present in the Local Impact Area. This has taken age demographics into account based on 2021 Census data.

			older people with no workforce attraction to prop up health and social care within these communities. This would compromise the vulnerable and has the effect of increasing loneliness and isolation. There is a failure in this document to use well established Quality and Outcomes Framework (QOF) data as well as the data from the Joint Strategic Needs Assessment (JSNA) to understand health in this area. For example, there is a higher modelled prevalence of respiratory disease in Gainsborough, in an area that has poor air quality compared to the rest of Lincolnshire. In many of the other disease profiles (e.g. stroke, coronary heart disease and cancer), these are higher than the National and Lincolnshire prevalence. The higher the deprivation, the great the multimorbidity. Mental health and the environment are linked in health outcomes and wellbeing. Many people gain benefit for their mental health by living in the countryside. Depression in our communities is increasing and particularly in rural farming where this has been well recognised. The impact of these schemes has the potential to worsen mental health because they take away the very fabric of what rural life is about.	The Applicant does not consider that QOF data would provide a useful addition to the baseline data already collected, due to its primary target use being for GP practices to measure their performance against national statistics. The Applicant has utilised 2011 and 2021 Census data, Office for Health Improvement and Disparities (OHID) data from 2020-21 (baseline data for JSNAs), Department of Work and Pension statistics, and 2019 Indices of Multiple Deprivation statistics to establish a suitable level of baseline data. Impacts on the local socio-demographic environment across the Scheme's construction, operation, and decommissioning have also been assessed in Section 18.7 **[APP-056]**. This includes assessment of the existing resident demographic profile, access to primary healthcare, population health and wellbeing, deprivation, and skills and qualifications. Subject to mitigation and enhancement measures as set out in Section 18.8 **[APP-056]**, the Scheme is not anticipated to have any significant adverse impacts on the socio-demographic environment. The Scheme is however anticipated to have **significant beneficial effects** on access to employment (para. 18.8.12) and education (para. 18.8.13) as measured indices of deprivation during construction. The Applicant is

				cognisant of the significance of the countryside for physical and mental wellbeing and as such, likely impacts on the desirability and use of recreational facilities in the countryside, such as public rights of way, have been assessed in Section 18.7 **[APP-056]**. The greatest level of effect to access, desirability and use of recreational facilities is moderate-minor adverse and is anticipated during construction (para. 18.7.60 to 18.7.67) and decommissioning (para. 18.7.143 to 18.7.153). These effects are not anticipated to be significant. This is re-iterated in Section 21.5 of **WB6.2.21 ES Chapter 21 Other Environmental Matters [APP-059]**. The Applicant is confident that the baseline data collected for assessment, sources consulted, and the breadth of receptors assessed cover a broad enough range of health and wellbeing effects to ensure the assessment has been suitably well-informed.
7A-119	Other Environmental Matters	Human Health and Wellbeing	Rural vs Urban There is a real concern, that as cities and towns heat up with climate change "heat islands", that the rural environment should be preserved to provide areas for people from urban areas to come out into rural areas to cool down. By developing forests and woodlands, this would	The Applicant notes this comment. The PV array will be installed over arable land which is to remain under a perennial green cover during operation – see paragraphs 19.9.12 and 19.9.13 of **WB6.2.19 ES Chapter 19 Soils and Agriculture [APP-057]**. It is considered that the green cover will offset any microclimate impacts arising from the installation of PV panels. In addition, the extensive

			enable rural shade, carbon sinks as well as providing nature-based therapy. People in urban areas seek out the natural environment to connect with nature as a means of helping them cope with life.	development-free ecological buffers to be imposed around valued features such as all hedgerows, ditches, watercourses, ponds, woodland and trees – which measure between 5 and 50m – will ensure that any shading, thermal or airflow impacts of the PV array will be avoided. The Applicant is cognisant of the significance of the countryside for physical and mental wellbeing and, as such, likely impacts on the desirability and use of recreational facilities in the countryside, such as public rights of way, have been assessed in Section 18.7 of **WB6.2.18 ES Chapter 18 Socio Economics Tourism and Recreation [APP-056]**.
7A-120	Other Environmental Matters Noise and Vibration	Light Pollution Noise Pollution	Noise and light pollution Rural communities on the whole have little exposure to traffic noise. In rural communities, there is very little light pollution. This scheme has the potential to increase noise generated from transformers, inverters and battery cooling fans. Perimeter fence lights have the potential to increase light pollution. This is an issue to those residents who border the scheme. Both noise and light pollution could potentiate sleep deprivation, worsening mental health, and eventually poor physical health.	Assessment of the environmental impacts of light pollution from the Scheme has been undertaken in Chapter 8 of the Environmental Statement **Landscape and Visual Impact Assessment [APP-046]**. As identified in Table 8.49, which sets out the Primary and Secondary Mitigation Landscape Design Parameters, there will be no lighting on perimeter fencing. As stated within paragraph 2.6.1 of **WB7.1_B Outline Construction Environmental Management Plan [EN010132/EX3/WB7.1_B]**, lighting (during construction) will be required for safety reasons but will be temporary in nature and predominately limited to the core working hours. Provision of a detailed CEMP has been secured by

				Requirement 13 of Schedule 2 of **WB3.1_C Draft Development Consent Order Revision C [EN010132/EX3/WB3.1_C]**. Paragraph 2.5.1 of **WB7.1B_A Outline Operational Environmental Management Plan [EN010132/EX3/WB7.14_B]**, which is secured by Requirement 14 of Schedule 2 of **WB3.1_C Draft Development Consent Order Revision C [EN010132/EX3/WB3.1_C],** notes that no part of the Scheme will be continuously lit and that the use of motion detection security lighting will avoid permanent lighting. Lighting is not required within the solar arrays. Lighting will be provided within substations and within the Energy Storage site to be used only in the event of it being required for maintenance and security purposes. Down lighting would be used on lighting columns of a maximum height of 3m. A detailed assessment of noise impacts is contained in Chapter 15 of the Environmental Statement **Noise and Vibration [APP-053].**
7A-121	Socioeconomics	Human Health and Wellbeing	For the purpose of this written representation, this paper will focus on where Cottam is situated, namely in the surrounding area that borders on the town of Gainsborough. It will reference the two relevant documents submitted, Environmental Statement Chapter 18: Socio-Economics and Tourism and	The Applicant has assessed impacts on socio-demographic receptors, including age and disability (as protected characteristics) in Section 18.7 of **WB6.2.18 ES Chapter 18 Socio Economics Tourism and Recreation [APP-056].** No significant adverse impacts to these groups as a result of the Scheme, or as a result of the cumulative NSIPs

			Recreation EN010132 APP/WB6.2.18 and Environmental Statement Chapter 21: Other Environmental Matters EN010132 APP/WB6.2.21 both written March 2023. We believe, the Equality Impact Assessment for this scheme written for the applicant has not highlighted the potential health and wellbeing issues to be faced by this scheme and the others (cumulative) on the people of Gainsborough, and surroundings (Local Impact Area). We do not believe that the Countryside and Rights of Way Act in any way should underpin this document as a reference to health. This is only an enabler. There is a new Health and Social Care Act 2022 which provides the foundations to improve health outcomes, which brings together the NHS, Public Health and Social Care at a local level with the hope that this will tackle health inequalities, which should have been highlighted by the Equality Impact Assessment. There was no mention of Lincolnshire's Long-Term Plan which has now been superseded by the Joint Forward Plan which has been published.	assessed have been concluded, as set out in Table 5.1 of **WB7.12 Equality Impact Assessment [APP-321].** The only identified significant adverse effects to human health and well-being have been identified in the Environmental Statement, as summarised in Section 21.5 of **WB6.2.21 Environmental Statement - Chapter 21 Other Environmental Matters [APP-059]**. This is a short-term moderate adverse effect on long distance recreation routes as a result of the Scheme's construction impacting upon the desirability and use of the Trent Valley Way and National Byways. Impacts on the local socio-demographic environment across the Scheme's construction, operation, and decommissioning have also been assessed in Section 18.7 of **WB6.2.18 ES Chapter 18 Socio Economics Tourism and Recreation [APP-056**]. This includes assessment of the existing resident demographic profile, access to primary healthcare, population health and wellbeing, deprivation, and skills and qualifications. Subject to mitigation and enhancement measures as set out in Section 18.8 **[APP-056]**, the Scheme is not anticipated to have any significant adverse impacts on the socio-demographic environment. The Scheme is however anticipated to have significant beneficial effects on access to

			NPS-EN-1 (2021) mentions the importance of identifying the indirect impacts affecting health and wellbeing, as well as promoting local improvements to encourage health and wellbeing. In Chapter 21 point 21.5.10, it is essential that the applicant's documents pick up on the health impacts of the operator's cycle of 40 years, and that there is a clear understanding of the cumulative impact. There is more emphasis around the health impacts on the construction and decommissioning element which are short periods in the life cycle of this and other schemes. The Secretary of State will want to mitigate these and we would argue that a Health Impact Assessment should have been requested. A reference to the Central Lincolnshire Plan 2012-2036 (Ref 21.9) (point 21.5.13) states clearly "The potential for achieving positive mental and physical health outcomes will be taken into account when considering all development proposals. Where any potential adverse health impacts are identified, the applicant will be expected to demonstrate how these will be addressed and mitigated". We will attempt in this written representation to address some of this. Rightly pointed out in the applicant's	employment (para. 18.8.12) and education (para. 18.8.13) as measures indices of deprivation during construction. Data at a settlement-level grain has been used to determine the sensitivity of receptors including indices of deprivation and access to primary healthcare. Although not identified explicitly, Gainsborough, for example, is an area within the Local Impact Area with very high rates of deprivation with regard to suitable income, access to employment, and education and skills attainment, which has contributed to the determination that access to employment and access to education are high sensitivity receptors. A separate Health Impact Assessment was not required at the EIA Scoping stage, and has not been requested up to this point by PINS, any host local authority, or any statutory body relating to public health. **WB6.2.18 ES Chapter 18 Socio Economics Tourism and Recreation [APP-056]** has utilised qualitative and quantitative data to build an overall picture of the baseline conditions present in the Local Impact Area. ONS data from the 2011 Census has been used where comparable data from the 2021 Census had not been published at the point of the ES being submitted. The Applicant is confident that the baseline data collected for assessment,

			document is the reference to the Lincolnshire Joint Strategic Needs Assessment (JSNA) which highlights start well, live well and age well, and which highlights the current and future health needs. This intelligence provides data which is relevant to health as part of this assessment. The applicant has not referenced this data at all despite referencing the JSNA. The JNSA recognises that Lincolnshire has some of the most affluent and some of the most deprived areas. This development borders on one of the most deprived towns in Lincolnshire, namely Gainsborough. Further reference to this will be made later in the written representation. Our environment plays a huge role in living well, and many older people retire to rural from urban areas to get the benefit of aging well. The document is lacking on a methodology to assess the schemes impact on Health and Wellbeing e.g., PHE: Spatial planning for Health: An evidence resource for planning and designing healthier space (2017). Much of this guidance references urban and not rural planning, People choose to live in rural communities to enjoy what the natural environment offers. Industrialising our fields with solar panels, destroying our visual impacts, changing our	sources consulted, and the breadth of receptors assessed cover a broad enough range of health and wellbeing effects to ensure the assessment has been suitably well-informed. Please also refer to Applicant's response to REP1A-015 contained within this document.

			ecosystems for years will have long term consequences on health and wellbeing which will be elaborated on later within the written representation. Planning Policy is written mainly around urban planning. The applicant should request input from Public Health (through a Health Impact Assessment), and the local NHS (Lincolnshire Integrated Care Board) who serve Lincolnshire, and really understand the issues we face in this County in areas such as Gainsborough and its surroundings. The Wales Health Impact Assessment Support Unit (WHIASU) provides good guidance for rural planning around health impacts. and specifically refers to framing around a definition of health and wellbeing that is holistic (physical and mental) that should include the social (wider) determinants of health. There has been no attempt to engage with Lincolnshire Public Health and NHS Lincolnshire to understand the possible Health and Wellbeing impacts this scheme will have on the surrounding areas and Gainsborough its nearest town. There might be health issues in the construction and decommissioning phase as identified by the applicant, however the applicant fails to recognise the significant impact	

			it will have to the communities over the forty-year period (operators). There is insufficient data within these documents to assess the significant effects on human health and wellbeing. The 2021 Census data was published in the Autumn, and other sources of data such as PHE fingertips could have provided further evidence to support this document. The study area has excluded to reference the town of Gainsborough where 2 wards (Gainsborough SW and Gainsborough East) have some of the worst deprivation in the County. It does not contextualise the cumulative impact this scheme will have with the other proposed NSIP's schemes planned. This will need to be taken into consideration, as health and socio economics are inherently linked. In Gainsborough, four of the LSOA's (Local Authorities and Lower Super Output Areas) are within the top 10% most deprived LSOA's in England. A LSOA is a geographic area where the populations are between a 1000 and 3000. The Director of Public Health report 2022 "The Diverse Communities of Greater Lincolnshire" designated Gainsborough as one of the three	

			urban industrial centres in Lincolnshire. Urban areas tend to have strong pockets of employment as opposed to the urban industrial centres where there are higher levels of economic inactivity and low social mobility. These areas tend to have a younger than average age profile, with over 60% of the population aged under 50 years and almost a quarter under 19 years of age. The article states that within these urban industrialised centres "inequalities in health life expectancy are stark". Given this, we are surprised that Gainsborough town is not highlighted in the applicants submission. We believe this scheme (including the others) has been strategically placed in this area which has significant deprivation. We argue that areas of deprivation are targeted for these developments because of an easier acceptance. Two papers written for the energy sector "identify that solar farms are 15% more likely to be approved in more socially and economically deprived areas" and that "demographic variables such as social deprivation can also influence the extent to which residents take action on renewable energy projects proposed in their local area; communities with higher social	

			capital are more likely to engage in official planning processes due to their higher capacity, agency and access to networks". Is this bias towards areas of deprivation being selected because of the ease of approving them and because of less wealth in the area to object against the projects. We believe this is the case and needs further explanation. Not referencing Gainsborough town is deliberately misleading. The only qualitative data they referenced is outdated ONS data from 2011 (Self-Assessment of Health, Self-Assessment of Long-Term Health or Disability). In fact, there is no satisfactory qualitative assessment within this document e.g., how it makes us feel emotionally, physically, and mentally. We would suggest such feedback, but this would require an informative approach to ensure well-balanced feedback. We would expect this survey to capture the human needs of freedom, understanding, equity and fairness, security and of course mental and physical health. It should include the determinants of wellbeing, that of personal value, our emotions and intelligence, social support, community involvement, friends and family, social relationships, and liveable environments. In that way we gather information on what we are	

			about. This should have been the qualitative data assessed by the applicant to evaluate our opinions around this scheme and the others planned. Wellbeing is subjective and about quality of life. Furthermore, it is well recognised that there is poor mental health in farming communities. In the UK there is a high suicidal rate amongst farmers, and the impact of this and these developments needs to be fully recognised as a possible impact on the farmers in the area that farm to make a living and are let down by those who have opted to place solar panels on their fields. This creates inequality between farmers and could lead to a health inequality e.g. long-term mental health. More concerning is the number of people at the open forum listening event with the public who expressed concerns at how this and other schemes would affect their mental health. Their recreational space is the wide-open countryside and its visual affect it has on them. Creating new village recreational facilities will not compensate. It states in Chapter 21 point 21.5.16 that these factors have been addressed! Please explain how? Point 21.5.42 talks about outdoor	

			recreation centres for adults and youths are not expected to be significant. We think the author does not understand rural communities. We are surrounded by open countryside, which is our recreational space. Country lanes are our cycle paths. event and tackle mental health issues, through engagement in nature-based activities. The largest solar farm in the world is Bhadla Solar Park in India (14,000 acres). This has been strategically placed in a desert with no human inhabitants around it. The cumulative size of all four proposed schemes from Saxilby to above Gainsborough, makes it one of the biggest in the world. We question why such a large scheme be placed around our communities without Public Health involvement from the start? A planned 5th scheme in Lincolnshire will now stretch even further to as far as Collingham near Newark. The applicant states in Chapter 21 point 21.4.2 that it is anticipated that no permanent visible lighting structures will be used on this scheme and that security lighting will be infrared, also with limited lighting associated with substations and occasional maintenance and emergency around the energy storage facility. Please clarify,	

			as lighting with motion sensors would be a problem in wind, and animal perimeter fence movement. In Chapter 18, point 18.8.20, we challenge the statement for all the reasons stated in our written representation that in the Local Impact area, general population health and wellbeing, disability and long-term health conditions are anticipated to be neutral effects. Also, access to primary care is anticipated to be neutral. Currently, access to primary care in Lincolnshire remains a huge challenge, and with the influx of temporary workers for all the schemes this would equate to one extra General Practitioner required, which is in itself a challenge. This would put extra burden on an already stretched primary care. This would require extra resourcing. We have significant Lincolnshire workforce issues due to rurality. Lastly, we request a special hearing to address health and wellbeing.	

7000 Acres – Personal Statement from John Parkin on the subject of Health and Wellbeing [REP1-085]

Reference	Theme	Issue	Summary of Issue Raised	Applicant's Response

7A-122	Socio-Economics – Health Impact Assessment	Health Inequalities	In particular, I am concerned as to the cumulative impact which may worsen health inequalities, marginalising already identified areas where deprivation exists, such as in the town of Gainsborough, which has not been mentioned at all by name within any of the documents presented by Gate Burton and Island Green Power. This has the potential to impact on the work the NHS is doing around CORE20PLUS5 in addressing health inequalities within Lincolnshire	Cumulative impacts on the local socio-demographic environment across the Scheme's construction, operation, and decommissioning have also been assessed in Section 18.10 of **WB6.2.18 ES Chapter 18 Socio Economics Tourism and Recreation [APP-056].** This includes assessment of the existing resident demographic profile, access to primary healthcare, population health and wellbeing, deprivation, and skills and qualifications. Subject to mitigation and enhancement measures as set out in Section 18.8 **[APP-056]**, the Scheme is not anticipated to have any significant adverse impacts on the socio-demographic environment. The Scheme is however anticipated to have significant beneficial effects on access to employment (para. 18.10.18).
7A-123	Socio-Economics	Loss of Countryside	Also, depression is increasing in our communities, and the impact of changing our environment will only worsen this. It is well recognised that green spaces are beneficial to mental health and well-being. Our loss of the countryside will manifest in grief, which has a direct impact on physical and mental health.	The Applicant is cognisant of the significance of the countryside for physical and mental wellbeing and, as such, likely impacts on the desirability and use of recreational facilities in the countryside, such as public rights of way, have been assessed in Section 18.7 of **6.2.18 Environmental Statement - Chapter 18 Socio Economics Tourism and Recreation [APP-056]**. The greatest level of effect to access, desirability and use of recreational facilities is limited to short- to medium-term moderate adverse effects on long distance recreational routes (the Trent Valley Way and National Byways) during construction (see Table 18.15 and para. 18.7.62). This is a **significant**

				adverse effect. This is however the only significant effect anticipated, with no greater than moderate-minor adverse anticipated to any other recreational receptor during construction (see paras. 18.7.60 to 18.7.69), or to any recreational receptor during operation (see paras. 18.7.107 to 18.7.117) and decommissioning (see paras. 18.7.147 to 18.7.157). These effects are not anticipated to be significant. This is re-iterated in Section 21.5 of **6.2.21 Environmental Statement - Chapter 21 Other Environmental Matters [APP-059]**.
7A-124	Socio-Economics – Health Impact Assessment	Care for older communities	We have predominantly more older people living in our communities who potentially could be further isolated, therefore making them more vulnerable.	The Applicant seeks to assure the public that the only identified significant adverse effect on human health and wellbeing as a result of the Scheme is anticipated to be a short- to medium-term temporary moderate adverse effect on desirability and use of long-distance recreation routes during construction (see Table 18.15 and para. 18.7.62 of **6.2.18 Environmental Statement - Chapter 18 Socio Economics Tourism and Recreation [APP-056]**). No other significant adverse effects to human health and well-being have been identified in the Environmental Statement, as summarised in Section 21.5 of **6.2.21 Environmental Statement - Chapter 21 Other Environmental Matters [APP-059]**.

7A-125	Socio-Economics – Health Impact Assessment	Proposed session on Health and wellbeing	I am therefore asking you to consider addressing this by creating a session on Health and Wellbeing within the examination process, looking at the implications this and the other schemes will have on the people who live in this area focusing on the 40-year impact.	The Applicant notes this comment.
7A-126	Socio-Economics – Health Impact Assessment	Proposed session on Health and wellbeing	In fact, I am surprised that no Health Impact Assessment has been provided given the cumulative effects of all the schemes in such a concentrated area, and the impact it will have 7000Acres 3 on people. This should have been carried out in partnership with Public Health and the NHS who work within our communities, and who have in-depth knowledge of the health issues that exist within this area. I would like to see this requested, and completed as a single document across all the schemes as one scheme of this magnitude, (I stress again, that being all 4 now 5 schemes combined together as one), would have necessitated this document as key to the Environmental Impact Assessment for your examination and crucial to advise the Secretary of State. Using a desktop search to assess health in my view is not satisfactory.	The Applicant notes this comment. **WB7.12 Equality Impact Assessment [APP-321]** signposts to Section 21.5 of **WB6.2.21 ES Chapter 21 Other Environmental Matters [APP-059].** No significant adverse effects to human health and well-being have been identified in the Environmental Statement, as summarised in Section 21.5 of **6.2.21 Environmental Statement - Chapter 21 Other Environmental Matters [APP-059]**. The Applicant seeks to assure the public that the only identified significant adverse effect on human health and wellbeing as a result of the Scheme is anticipated to be a short- to medium-term temporary moderate adverse effect on desirability and use of long-distance recreation routes during construction (see Table 18.15 and para. 18.7.62 of **6.2.18 Environmental Statement - Chapter 18 Socio Economics Tourism and Recreation [APP-056]**).

				A separate Health Impact Assessment was not required at the EIA Scoping stage, and has not been requested by any statutory body relating to public health.
7A-127	Socio-Economics – Health Impact Assessment	Proposed session on Health and wellbeing	A Health Impact Assessment would put the local health and wellbeing needs and priorities into the plan for better decision making, by putting people at the heart of the process.	The Applicant notes this comment.

2.10 Flooding Concerns

7000 Acres – Flooding Concerns [REP1A-016] [REP1A-025]

Reference	Theme	Issue	Summary of Issue Raised	Applicant's Response
7A-128	Flood Risk & Drainage	Flood risk	The developer appears to have misunderstood the hydrology of a concentrated flow of rainwater running from the inclined 4.5 metre high solar panels onto the confined area of the drip line falling onto the edge of the compacted panel maintenance lanes between the solar array and the inaccessibility of the area in the sheltered rain shadow beneath the panels, resulting in at least half the area of the development being unavailable for infiltration than is currently the case. Also, the impingement and sheer force of the fast-moving channel of water along the panel driplines to erode the soil and mobilise clay, fine particles together with natural vegetation to enter the water courses and negatively impact aquatic invertebrates and the general ecology of the dykes, drains including the river Till. It remains a matter of serious concern that the Environment Agency and the Upper Witham Drainage Board have not also raised concerns regarding the flooding risk, which is patently	The Scheme will not contribute to an exacerbation of flooding in the area. This is also the case for the other stated schemes. The embedded mitigation detailed in section 10.7 of **WB6.2.10 ES Chapter 10_Hydrology, Flood Risk and Drainage [APP-048]** will ensure there is no loss of flood storage as a result of the Scheme and that the existing surface water run-off regime will be replicated. There is no UK environmental managing guidance with regards to runoff from solar panel installations. However, research undertaken in the United States (US) by Cook and McCuen considers the points raised in this comment and states within their conclusions that; *'The addition of solar panels over a grassy field does not have much of an effect on the volume of runoff, the peak discharge, nor the time to peak. With each analysis, the runoff volume increased slightly but not enough to require storm-water management facilities'*, and continue to recommend that the vegetation cover beneath the panels is well maintained or that

			obvious. West Burton Solar Project's Flood Risk Assessment in its Environmental Statement makes scant reference to the effect the development will have on the River Till and its tributaries and appears to concentrate mainly on the flood risk to the solar arrays and equipment within the development itself. Nowhere in the developer's Flood Risk Assessment is there an estimate of the maximum quantity of surface water running from approximately millions of square metres of solar panels. Periods of heavy rain exceeding 50mm in a 24-hour period are not unknown in Lincolnshire which would produce 0.32 million cubic metres of surface water, much of which would not be absorbed along the panel drip line when the soil becomes saturated. This quantity of water could not possibly be contained on the site even if Defra's SuDS formula were to be applied to provide tens of thousands of cubic metres of storage for West Burton 1 and 2 alone. The flood risk from West Burton 1 and 2 cannot be considered in isolation and the flooding risks arising from Gate Burton EP, Cottam Solar Park	a buffer strip be placed after the most down gradient row of panels. Point 3 of paragraph 10.8.1 within **WB6.2.10 ES Chapter 10_Hydrology, Flood Risk and Drainage [APP-048]** Includes provision for suitable planting (such as a wildflower or grass mix) to ensure that the underlying ground cover is strengthened and is therefore unlikely to generate surface water runoff rates beyond the baseline scenario. The proposed drainage strategy is detailed within Section 5.0 of **WB6.3.10.1 ES Appendix 10.1 Flood Risk Assessment and Drainage Strategy Report [APP-089].** Section 5.0 'Drainage Strategy' of **WB6.3.10.1 ES Appendix 10.1 Flood Risk Assessment and Drainage Strategy Report [APP-089]** assesses that the panelled areas will not alter the existing surface water run-off regime and will therefore not be formally drained. Areas of increased hardstanding such as smaller areas of hardstanding formed as footings for electrical infrastructure will utilise SuDS principles and attempt to align with the existing surface water run-off regime as existing. The substation and BESS area within the Scheme is considered within an area specific drainage strategy included within Section 3.0 of **WB6.3.10.5**

			and Tillbridge Solar must also be jointly considered since they all are situated on the catchment area of the river Till and comprise approximately 10,000 acres of land in total.	**Environmental Statement - Appendix 10.5 FRA DS West Burton 3 [APP-093].** The drainage strategy and detailed drainage design will be developed during the detailed design process. As secured by Requirement 11 in Schedule 2 of the **WB3.1_C Draft Development Consent Order Revision C [EN010132/EX3/WB3.1_C]** "No part of the authorised development may commence until written details of the surface water drainage scheme and (if any) foul water drainage system for that part have been submitted to and approved by the relevant planning authority." The calculation provided suggesting 0.32 million cubic meters of surface water attenuation assumes that the panelled area effectively acts as hardstanding where no infiltration can occur and that the surface water generated by it, needs to be attenuated. This is not the case as detailed by Cook and McCuen (Hydrologic Response of Solar Farms, (Cook and McCuen and 2013). As set out in **WB6.2.10 ES Chapter 10_Hydrology, Flood Risk and Drainage [APP-048]** , the increase in permanent impermeable area on the Site will be negligible. The proposed solar schemes will not contribute to an exacerbation of flooding in the area. This is also the case for the other stated schemes in the area

				and therefore, there will not be a cumulative impact.

2.11 Food Security

7000 Acres – Food Security [REP1A-017]

Reference	Theme	Issue	Summary of Issue Raised	Applicant's Response
7A-129	Agriculture & Soils	Food Security	If the world becomes short of electricity then we will adapt to some other form of energy. If the world becomes short of food then we will starve and die. Farmland must be used for food production not energy generation. When evaluating the West Burton Solar Project proposals it is clear that WB3 should be retained as an arable farming area. Farm C is 73% BMV land and Farm D is 61% BMV land so it is obviously not viable to be converted for solar panel installation as it is needed for food production. Why does Island Green Power believe that Energy Security is more important than Food Security? What is their explanation for this project apart from commercial gain? Next time you see pictures of adults and children suffering from starvation I hope that your conscience is clear that you made the right decision that food is more important than electricity	Please refer to responses SOI-01 and MGBPC-02 in **WB8.1.2 The Applicant's Responses to Relevant Representations [REP1-050]**.

2.12 Land Productivity

7000 Acres – Land Productivity [REP1A-019]

Reference	Theme	Issue	Summary of Issue Raised	Applicant's Response
7A-130	Land Use	Land Productivity	Within EN010132-000369-WB6.2.18 ES Chapter 18_Socio Economics Tourism and Recreation there is no mention of the existing crop production that will be lost if the acreage is covered in solar panels. There is also no mention of the associated businesses that will be impacted by this loss of crop production.	Impacts on agricultural productivity were not scoped into the EIA, and no request has been received by any statutory consultee for this to be included for assessment during the EIA Scoping stage, during ongoing consultation with local authorities, or during Section 42 statutory consultation.
7A-131	Socio-Economics	Agricultural Employment	However, within section 18.7.48 it states that the Scheme is estimated to displace approximately 13 agricultural sector jobs in the Local Impact Area, this is estimated to have an economic impact of £600,000, based on a GVA per worker of £49,074 (Ref .67). This impact will reduce the value of the local agricultural economy (£265 million) by approximately 0.2%. It also states in section 18.7.96 that the Scheme is likely to bring a direct benefit to local landowners through payment of annual ground rent which is anticipated to be in the region of £1.7 million per annum which demonstrates the greed of the landowners at the expense of the local employees.	The assessed worst-case loss of 13 FTE agricultural jobs as a result of the Scheme is equivalent to 0.3% of the agricultural employment in the Local Impact Area, as set out in para. 18.7.15 of **WB6.2.18 ES Chapter 18 Socio Economics Tourism and Recreation [APP-056]**. Potential for continuation of non-arable agricultural practices on the Scheme, and the ongoing continuation of arable agricultural in the surrounding areas demonstrates that it is unlikely that there will be any more than a low level of impact on agricultural supply chains, and therefore are not anticipated to experience significant effects, even when considered cumulatively with other NSIPs in the Till Valley area of West Lindsey. As a result, these have not been assessed.

				The land included in the Scheme covers 4 farm businesses, all of which are owner occupiers of the land within the Sites as set out in Section 7 of **WB6.3.19.1 ES Appendix 19.1 Agricultural Land Quality Soil Resources and Farming Circumstances [APP-137]**. As such, no agricultural employment beyond those already employed on the owner-occupied businesses are assessed to be directly affected.
7A-132	Socio-Economics	Agricultural Employment	It further states within section 18.10.47 that the anticipated cumulative effect of the other identified local projects on the agricultural economy is a peak loss of approximately £1.8 million per annum.	As outlined in paragraph 18.10.23 of **WB6.2.18 ES Chapter 18 Socio Economics Tourism and Recreation [APP-056]** this amount is equivalent to 0.7% of the grouped ABDE sector economy in the Local Impact Area. Therefore the cumulative effect is minor adverse, which is not a significant effect.
7A-133	Agriculture and Soils	Agricultural Production	The developer, Island Green Power, should provide an assessment of this topic of Land Productivity with quantifiable data for the proposed scheme acreage covering: a) What crops have been produced in the past? b) What quantity and grade of crops have been produced? c) What percentage of UK production is this? d) Where else are these crops produced that can replace the lost production?	Impacts on agricultural productivity were not scoped into the EIA, and no request has been received by any statutory consultee for this to be included for assessment during the EIA Scoping stage, during ongoing consultation with local authorities, or during Section 42 statutory consultation. As such, it is the Applicant's continued position that this form of assessment is not required to determine the merits versus impacts of this Scheme.

7A-133A	Agriculture and Soils	Agrivoltaics	IGP should also explain how they have integrated the concept of "agrivoltaics" i.e. systems in which farmland is effectively combined with solar power.	It is noted within paragraph 19.9.18 of **WB6.2.19 ES Chapter 19 Soils and Agriculture [APP-057]** that the management of grass below and between the solar panels can include the grazing of livestock where appropriate and as such, the majority of land within the Sites can continue in agricultural production during the operational period.

2.13 Landscape and Visual Impact Assessment

7000 Acres – Landscape and Visual Impact Assessment [REP1A-020]

Reference	Theme	Issue	Summary of Issue Raised	Applicant's Response
7A-134	LVIA	Principle of the Development	The 7000 Acres Group is a collection of local residents and community groups against the vast solar industrialisation of the countryside in the District of West Lindsey, Lincolnshire. Many of our members are already being and will be directly and adversely affected by the industrial proposals. Residents and users of the countryside in and around the proposed development of the West Burton Solar Project, to express the concerns our members have in relation to the significant loss of landscape character, visual amenity and beauty of the landscape in the area they live. No arbitrary line has been drawn here to determine any field of influence as residents and users perceive the landscape beyond these lines and in an experiential manner. Therefore, any negative impact is also perceived in this way.	The Applicant notes this comment.
7A-135	LVIA	Scale	This scheme is divided into three separate developments (West Burton 1, 2, and 3) collectively covering an area of approximately 1900 acres (760) of farmland and countryside	Public Rights of Way may be subject to short-term temporary diversions as a result of construction works, or closures to facilitate cable laying as set out in para 3.13 of **6.3.14.3_B Environmental**

			with solar PV, battery storage energy plant and associated infrastructure. The Order Limits include and amount to a 480MW Solar Project. The cable routes between the sites and grid connection travels approximately 21.3 km. The life-span of the scheme is now predicted to be for a 60 year period. Due to the nature of the solar scheme being spread over three separate sites across a wide area in the West Lindsey District, there are several Public Right of Ways (PRoW's) affected and or temporarily stopped by the proposals. In Section 18 of the dDCO; for the temporary closures, there does not appear to be any notice periods or time frames for diversions and closures included in Article 11 or the OPMP. The Applicant refers to 'reasonable' time frames for closure. This wording is in itself unreasonable in that it provides no time limit or understanding of the time the closures will be imposed. Along with these designated PRoW's, local roads are utilised for recreational use by walkers, horse-riders, cyclists and indeed facilitate local rallies and events, therefore, impact to communities and visitors enjoyment of the surroundings is a significant factor.	**Statement - Appendix 14.3 Outline Public Rights of Way Management Plan Revision B [EN0101032/EX3/WB6.3.14.3_B]**. The length of time these PRoWs are closed for is therefore limited to the time taken to undertake any works that would interfere with the continued use of the PRoW, and any closures will be supported by appropriate amounts of notice and accompanied by suitable diversions. All Public Rights of Way on and surrounding the Sites are to remain open during construction where feasible, and all existing Public Rights of Way are to be retained during the Scheme's operational lifetime. A Public Rights of Way Management Plan that is substantially in accordance with the outline PRoWMP **[EN010132/EX3/WB6.3.14.3_B]** will be implemented during the construction phase of the Scheme. This will be submitted and approved prior to the commencement of construction of the Scheme, as secured through Requirement 18 of Schedule 2 of **3.1_C Draft Development Consent Order Revision C [EN010132/EX3/WB3.1_C]**.

			Consequently, mental health issues are a major concern.	
7A-136	LVIA	Study Area	7.1 – Disagrees that a 2km Study Area is appropriate for effects on local landscape character of infrastructure and equipment	The Applicant notes this comment. The approach to **Chapter 8: Landscape and Visual Amenity (LVIA) [APP-046]** of the Environmental Statement has been undertaken having regard to comments made at the Scoping and PEIR Stages of the Scheme and in workshops between the Applicant and the local authorities, which included Lincolnshire County Council (LCC). At these workshops, the Applicant explained how they would approach the LVIA. This consultation with LCC has been undertaken at a number of workshops as set out in the consultation chapter of the LVIA within **WB6.3.8.4 ES Appendix 8.4 Consultation [APP-075].** The consultation enabled a consensus to be reached on the approach to the assessment and the methodologies to be adopted. The assessment has been undertaken in accordance with **WB6.3.8.1 ES Appendix 8.1 LVIA Methodology [APP-072**] which was agreed with LCC by email on 4th October 2022.
7A-137	LVIA	Study Area	7.2 - 5km Study Area is flawed. It is justified by the existing 'strong framework of hedgerows and	The Applicant notes this comment.

			tree cover'. The worst-case removal of all trees and hedgerows will mean visibility will extend beyond this to sensitive receptors, including Landscape Character Areas and Lincoln Cathedral and Castle.	Please see the response to comment above.
7A-138	Landscape & Visual Impact	Methodology	7.4 - ZTV methodology is based on existing woodland and hedgerows. The modelling is potentially baseless if all trees and hedgerows are removed.	The Applicant notes this comment. The ZTV Methodology has been undertaken in accordance with **WB6.3.8.1 ES Appendix 8.1 LVIA Methodology [APP-072]** that was agreed with LCC at the series of workshops as set out in **WB6.3.8.4 ES Appendix 8.4 Consultation [APP-075]** and also by email on 4th October 2022.
7A-139	LVIA	Planning	It is considered that no National Policy Statement (NPS) has effect in relation to section 104 of the Planning Act 2008. Therefore section 105 of the Act is paramount. The Local Impact Reports submitted by Lincolnshire County Council (LCC) and West Lindsey District Council (WLDC) take precedence within section 105 above "(b) any matters prescribed in relation to development of the description to which the application relates, and (c) any other matters which the Secretary of State thinks are both important and relevant to the Secretary of State's decision." The above statements set out the hierarchy for assessment	No technology specific NPS currently has effect so the Scheme will be determined in accordance with Section 105 of the PA 2008, as acknowledged in paragraph 1.3.5 of **7.5_A Planning Statement Revision A [EN010132/EX3/WB7.5_A]**. However, NPS EN-1 (2011), NPS EN-1 (November 2023) and NPS EN-3 (November 2023) are important and relevant matters. Section 105(2) of the Planning Act 2008 does not set out a hierarchy and does not specify that the local impact report should be given more weight than any other matters which are important and relevant.

			and judgement and as such show that Local Impact takes precedence above other matters, therefore, it can be argued that the local impact as described in this written representation forms part of that submission. The 7000 Acres Group also agrees that the DCO submission be examined in light of the relevant Local Plan Policies and Neighbourhood Plans as cited by the respective Councils.	The NPPF does not contain specific policies related to NSIPs. However, it does contain guidance on requiring good design; promoting sustainable transport; healthier communities; conserving and enhancing the natural and historic environment; and meeting the challenges of climate change. It sets out particular issues to take into account in determining planning applications and is considered to be an important and relevant matter in the determination of the application. It is considered to have less weight than the relevant NPSs (2011 and November 2023 versions) (see Applicant's response to ExA First Written Question 1.1.3 **[EN010132/EX3/WB8.1.21]**. The Applicant has responded to the points raised in the Local Impact Reports at Deadline 3 **[EN010132/EX3/WB8.1.20]**. The **7.5_A Planning Statement Revision A [EN010132/EX3/WB7.5_A]** considers the Scheme in the light of any applicable local plan policies and neighbourhood plans.
7A-140	LVIA	Barriers	The Applicants Draft Development Consent Order specifically cites the provision to remove all trees and hedgerows within the Order Limits and beyond to facilitate the proposed development. The Landscape and Visual Impact Assessment	As explained by the Applicant at Issue Specific Hearing 1, whilst the DCO enables the removal of hedgerows within the Order Limits, this power is restricted by DCO Requirements including the Outline Ecological Protection and Mitigation

			claims retention and enhancement of trees and hedgerows within the same areas. The subsequent findings of the LVIA are based on this premise. The contradiction of these two fundamental documents means that neither is valid at present. Subsequently, if changes are made to either document in the Examination process, clear and coherent measures and findings need to be submitted by the Applicant to offer all parties any scrutiny of results. There are several barriers to understanding the information provided in terms of presentation, not using plain language and moreover not following issues identified at the baseline through stages of the methodology process to the findings and results. AHH Planning Consultants appointed by Lincolnshire County Council, to review the LVIA, state that, the volume of information and cross referencing appendices, 'makes the identification and clear understanding of key landscape and visual findings, as well as providing succinct review comments, difficult. The main LVIA chapter alone is some 252 pages with limited summary or narrative of effects to communicate the main findings, relying in places multiple	Strategy **[APP-326]** and **WB7.3_B Outline Landscape and Ecological Mitigation Plan Revision B [EN010132/EX3/WB7.3_B]**,which are secured by Requirement 8 and 7, respectively, of Schedule 2 of the WB3.1_C Draft Development Consent Order Revision C **[EN010132/EX3/WB3.1_C]**, The result is a highly limited quantity of hedgerow loss. The Applicant has submitted a summary and narrative of effects at **Deadline 1** set out in the Supplementary ES Landscape Information: Landscape Effects Tables **[REP1-058]** and in Supplementary ES Landscape Information: Visual Effects Tables **[REP1-059]** which summarises the main findings of the LVIA. This non-technical summary is to assist readers understand the conclusions of the LVIA and contains a list of potentially affected receptors with summarising narrative to provide context and identify what the key issues are.

			statements cross-referencing large appendices or supporting documents. This makes the document in places difficult to follow, at odds with the recommendations offered within the Landscape Institute's Guidelines for Landscape and Visual Impact Assessment, 3rd Edition (GLVIA3), which is the acknowledged primary guidance document on landscape and visual assessment'(2.1). This is a professional appraisal. If an expert in this field finds the material 'difficult' to understand, residents are afforded no real chance. This highlights the magnitude of difficulties and barriers to understanding resident's experience. This failing of the Application material is prejudicial to our members and members of the public in the region. In effect, they become excluded from understanding the information provided. This ultimately means that they cannot engage fully in the Examination process and so representations to the Examining Authority and subsequently the Secretary of State are less informed.	
7A-141	LVIA	Inconsistencies	The parameters of the development proposals have not been clearly expressed by the LVIA and so the basis for the LVIA is lost. The intention described in the LVIA is to retain and enhance	Please see the response to REP1A-019 above. In certain locations where existing accesses do not exist, some very minor hedgerow removal is necessary to accommodate access roads

			trees and hedgerows in relation to the Scheme. The Draft DCO is applying for the removal of all trees and hedgerows as mentioned. Therefore, the basis of the LVIA is undermined as all landscape findings and recommendations refer back to the retention of trees and hedgerows and vegetation enhancement. No landscape plans show the removal of all trees and hedgerows. The mitigation programme is based solely on vegetation measures and so this programme through all phases of the proposed Scheme, will be baseless if this element of the Draft DCO stands. The 7000 Acres Group strongly objects to the possibility of all trees and hedgerows within the Order Limits and beyond to be removed. The Applicants statement is this regard holds no credibility or validity. Members have expressed shock and disbelief at this possibility.	between fields, land parcels and solar panel areas. Hedgerow removal is to be permanent in limited circumstances where required to retain access to the solar sites, but all hedgerow removal will only be temporary for the installation of the electrical cabling. The extent of hedgerow removal is set out in Hedgerow Removal Plans which are contained within **WB7.3_B Outline Landscape and Ecological Mitigation Plan Revision B [EN010132/EX3/WB7.3_B]** This removal will involve only very short sections of hedgerow to accommodate internal access roads and will not involve loss of trees, in particular trees protected under any Tree Preservation Orders (TPOs).
7A-142	LVIA	LVIA Effects	The Landscape Character Baseline is submitted by the Applicant in Chapter 8.5 of the LVIA. It is a desk top study examining the National, Regional and Local Character Areas. From these, 4 Regional Character Areas (from the East Midlands Regional Landscape Character Assessment), 9 Local Character Areas (from the West Lindsey	The Applicant notes this comment. The approach to **WB6.2.8 ES Chapter 8: Landscape and Visual Amenity (LVIA) [APP-046]** of the Environmental Statement has been undertaken having regard to comments made at the Scoping and PEIR Stages of the Scheme and in workshops between the Applicant and the local

			Landscape Character Assessment), 3 Trent Vale Landscape Character Areas (from the Trent Vale Landscape Character Assessment) and 1 Historic Landscape Character Zone (from the Historic Landscape Characterisation Project: The Historic Character of The County of Lincolnshire). These assessments are at a large scale and so a more detailed landscape characterisation was carried out. From this, 8 further landscape receptors or individual contributors to landscape character were identified. Due to the scale of the West Burton Solar Project, the large amount of information prevents an understanding of the overall landscape character of the study area. Again, barriers to information occur as the process of cross-referring the many tables and pages means a clear picture isn't presented. The landscape baseline identified no character areas or contributors that were of high sensitivity or susceptibility to effects. This is an unexpected finding and warrants further scrutiny.	authorities, which included Lincolnshire County Council (LCC). At these workshops, the Applicant explained how they would approach the LVIA. This consultation with LCC has been undertaken at a number of workshops as set out in the consultation chapter of the LVIA within **WB6.3.8.4 ES Appendix 8.4 Consultation [APP-075**]. The consultation enabled a consensus to be reached on the approach to the assessment and the methodologies to be adopted. The assessment has been undertaken in accordance with **WB6.3.8.1 ES Appendix 8.1 LVIA Methodology [APP-072]** which was agreed with LCC by email on 4th October 2022. The Applicant has submitted a summary and narrative of effects at **Deadline 1** set out in the Supplementary ES Landscape Information: Landscape Effects Tables **[REP1-058]** and in Supplementary ES Landscape Information: Visual Effects Tables **[REP1-059]** which summarises the main findings of the LVIA. This non-technical summary is to assist readers understand the conclusions of the LVIA and contains a list of potentially affected receptors with summarising narrative to provide context and identify what the key issues are.

			There is a designated Area of Great Landscape Value along the Lincoln Cliff. This designation indicates that the landscape along and across from this linear feature is a high sensitivity receptor. Due to the reach of the West Burton Solar Project it is reasonable to argue that these areas of high sensitivity will be negatively affected. West Lindsey District Council's Written Representation (5.61) states that, 'The West Burton Solar Project scheme will cause significant harm to the landscape character of the area, altering it from its agricultural use and character potentially irrevocably. The visual effects on communities are visitors will be significant'. The Applicant identifies in the LVIA that at the four phases of the West Burton Solar Project, there will be significant beneficial effects on landscape character areas. AHH (4.10) state that; 'We are not in agreement with some of the findings of the landscape assessment, and do not see any appropriate justification for assessing significant beneficial landscape effects on	The Scheme is not located directly within or within the setting of any nationally designated landscape. The Scheme is not located within any locally designated landscape such as Area of Great Landscape Value (AGLV). The Ridge AGLV however is located approximately 2.3km east of the West Burton 1 Site and 3.6km east of the West Burton 2 Site, and the Laughton Wood AGLV is located approximately 350m to the northeast of the West Burton 3 Site. In recognition of the close proximity to the Laughton Wood AGLV and the distinct landform of the Ridge AGLV leading north from Lincoln, the **LVIA [APP-046]** takes account of these two designations. **6.2.8 Environmental Statement - Chapter 8 Landscape and Visual Impact Assessment [APP-046]** (the 'LVIA') assesses the effects of the Scheme on landscape and visual receptors, including on the AGLV designation, in particular the Ridge AGLV or Laughton Wood AGLV (as identified in paragraphs 8.4.11, 8.5.125, 8.5.126, 8.5.142, 8.5.161, 8.5.162, 8.7.36, 8.7.38, 8.7.86, 8.7.88, 8.7.145, 8.7.147, 8.9.47, 8.9.48, 8.9.49) noting there will be positive changes to the wider setting of the AGLVs due to the additional vegetation enhancing the local landscape character. The LVIA also considers the impacts of the Scheme on the AGLV designation alongside other cumulatively assessed

			landscape character areas by the construction and operation of a large solar development.' To cover thousands of acres of landscape with industrial units cannot have a beneficial effect on landscape character. Also, as stated if the Draft DCO element of the removal of all trees and hedgerows is to be implemented, these findings by the Applicant illustrate skewed and bias results. West Lindsey District Council considers these results as 'erroneous, failing to reflect the conclusions reached in other ESs for similar projects.' (Written Representation para 5.63).	NSIPs (see paragraphs 8.10.74 to 8.10.79) and has concluded that there will be no significant adverse effects on landscape character and visual amenity over an extensive area as a result of the cumulative impacts of the schemes. Within the LVIA **[APP-046],** it is acknowledged that there will be a minor adverse change to the character of the landscape at Site level within the Regional Scale Landscape Character Area – Profile 4a: Unwooded Vales (defined within the East Midlands Regional Landscape Character Assessment) during the construction and operational (Year 1) phases of the Scheme. With the Local Scale Landscape Character Area – Profile 3: The Till Vale (defined within the West Lindsey Landscape Character Assessment), it is also acknowledged that there will be a minor adverse change at Site level during the construction and operational (Year 1) phases of the Scheme. For further information, please refer to **6.3.8.2 Environmental Statement - Appendix 8.2 Assessment of Potential Landscape Effects [APP-073].** These associated appendices provide a detailed assessment of landscape the effects on each landscape receptor including the character

				areas from the East Midlands Regional Landscape Character Assessment and the West Lindsey District Landscape Character Assessment. **6.2.8 ES Chapter 8 Landscape and Visual Impact Assessment [APP-046]** (the 'LVIA') considers the visual effects of the Scheme and the assessment includes a suite of viewpoints that cover a wide range of visual receptors, including public locations such as transport routes, PRoW and residential properties. The visual effects are set out in **6.3.8.3 ES Appendix 8.3 Assessment of Potential Visual Effects [APP-074]**, which shows that some effects on visual receptors will be significant at construction and year 1 of operation, but with mitigation this is reduced across the majority of the landscape receptors to not significant at year 15 of operation. Public vantage points from in and around the villages are also considered within the LVIA, for example viewpoints VP01 and VP08 associated with the settlement of Broxholme, VP18 and VP28 the settlement of Ingleby and VP21, VP22 and VP23 with the settlement of Saxilby. These public vantage points are shown on **ES Figure 8.12.1 [APP-190]** to **Figure 8.12.3 [APP-192]**.

7A-143	LVIA	LVIA Effects	Lincolnshire County Council from September 2023 is embarking on an ambitious woodland creation programme and will be planting 750,000 trees over coming years across the County. This strategy will be carried out in conjunction with many partners and stakeholders across the County to implement sensitive woodland and habitat creation schemes which assimilate into the landscape and promote accessibility and healthy living. The proposed West Burton Solar Project will directly and indirectly impinge on this programme of tree planting in the County. Moreover, the West Burton Solar Project is advocating removing all trees and hedgerows in its wake as we know. Habitat creation which will add to the current ecological and environmental make-up of the locality from this woodland creation programme will in effect be detrimentally effected due to the proposed expanse of the solar industry across the landscape instead. Therefore, this shows that other positive land use changes in the County will not be feasible or as effective due to the solar industrialisation from the proposed West Burton Solar Project and further proposed Solar NSIP in the District.	The LVIA looks to provide extensive landscape mitigation that is set out in the **WB7.3_B Outline Landscape and Ecological Management Plan (LEMP) [EN010132/EX3/WB7.3_B]** and is also shown on the Landscape and Ecology Mitigation and Enhancement Plans (Figures 8.16.1 to 8.16.10) **[APP-305** to **APP-315]**. This mitigation seeks to enhance the visibility of the Scheme from public vantage points including transport routes, public footpaths, permissive footpaths and green lane networks. This mitigation is aimed to benefit the community as a whole as well as tourists, visiting walkers, local residents, ornithologists and cyclists. The landscape mitigation measures will seek to provide new planting, which will include c7.1km new native hedgerows, c13.7ha new tree cover and c570ha new diverse grassland habitat, and this will also include their management and maintenance. The OLEMP is secured through Requirement 7 in Schedule 2 to the draft DCO **[EN010132/EX3/WB3.1_C].**

			The beneficial landscape effects promoted by the Applicant are mainly based on the mitigation planting. This analysis is deemed as providing 'an unbalanced judgement as to the benefits of the scheme' (para. 4.12, AHH). The failings of the LVIA continues, highlighted in the AHH Review, in Operation (Year 1), with beneficial effects being assessed in relation to landscape receptors (Land Use at West Burton 1) again based on mitigation planting. Lincolnshire County Council agrees in their Local Impact Report (16.4) that there will be a 'permanent and negative impact upon the landscape character and the appearance of the area as a consequence of changes to the current arable agricultural land use'.	
7A-144	LVIA	LVIA Findings	Due to the many anomalies and extraordinary findings of the LVIA, the Planning Consultants at AHH recommend that the 'Examination process now provides the opportunity to develop a clearer and more succinct identification and summary of the key landscape and visual issues and effects.' The 7000 Acres Group argues that this statement illustrates that the Landscape and Visual Impact Assessment in its current form is not fit for purpose.	The Applicant disagrees with this comment. The Applicant has submitted a summary and narrative of effects at Deadline 1 set out in the Supplementary ES Landscape Information: Landscape Effects Tables **[REP1-058]** and in Supplementary ES Landscape Information: Visual Effects Tables **[REP1-059]** which summarises the main findings of the LVIA. This non-technical summary is to assist readers understand the conclusions of the LVIA and contains a list of

				potentially affected receptors with summarising narrative to provide context and identify what the key issues are.
7A-145	LVIA	LVIA Mitigation	8.12 – The landscape mitigation proposed for the Scheme relies on vegetation planning. An overriding landscape characteristic of the area is the wide and open landform. The use of landscape planting to obscure views of solar equipment will mean that the landscape and views become enclosed and narrow and planting becomes a defining detrimental characteristic. The proposed development cannot be readily assimilated into the landscape. The Scheme's landscape approach is not understood, especially if all trees and hedgerows are to be removed.	The Applicant notes this comment. The LVIA assessment provides a comprehensive understanding of the potential impacts of the Scheme, including any changes to landscape character. This takes into account the effects on the landscape character in detail, from the national scale, through regional, county district and local scales to the landscape character areas within the 5km Study Area. The proposed planting has been carefully designed to be in keeping with the landscape character and to avoid key views across the landscape. Please refer to the individual receptor sheets at **WB6.3.8.2 ES Appendix 8.2 Assessment of Potential Landscape Effects [APP-073].** With regard to the potential effects on existing vegetation, including trees and hedgerows, please refer to the response to comment 5.1 above.
7A-146	LVIA	LVIA Cumulative Effects	Cumulative Landscape and Visual Effects 8.21 – The Scheme will compound the effects of the other nearby schemes in changing the	The Applicant notes this comment. Cumulative landscape and visual effects relating to the Cumulative Developments have been considered at section 8.10 of the LVIA **[APP-046]**.

			landscape character of the locality and the region. No justification is given for the finding that there will be beneficial effects.	The Cumulative Assessment is undertaken in accordance with **6.3.8.1 Environmental Statement - Appendix 8.1 LVIA Methodology [APP-072]** that was agreed with LCC at the series of workshops as set out in **6.3.8.4 Environmental Statement - Appendix 8.4 Consultation [APP-075].** The Cumulative Assessment is based on the additional changes caused by the Scheme in combination with other similar developments. This includes schemes with planning consent and schemes that are subject of a validated planning application that has not yet been determined. As set out within the Cumulative Assessment Methodology this includes three other solar projects; Cottam Solar Project; Gate Burton Energy Park and Tillbridge Solar. The Cumulative Assessment does not conclude any significant Beneficial effects. In regard specifically to Land Use, following the creation and establishment of extensive mixed grassland habitats at year 1 and year 15 of operation In-combination effects are Minor Beneficial (Not Significant). The Cumulative Assessment identifies there to be an Adverse impact (not significant) on the following landscape receptors:

				• RLCT 3a Floodplain Valleys (Construction) - Negligible Adverse (Not Significant). • BLCA LCT Trent Washlands (individual Policy Zones TWPZ21, TWPZ22, TWPZ23, TWPZ24 and TWPZ48) (Construction) - Negligible Adverse (Not Significant). • Land Use (Construction) - Minor Adverse (Not Significant). • Nationally and Locally Designated Landscape (construction, operation (year 1 and year 15) and decommissioning) - Negligible Adverse (Not Significant) The Cumulative Assessment identifies there to be an Adverse impact on the following visual receptors: • Viewpoint LCC-A - Middle Street (construction, operation (year 1 and year 15) and decommissioning) - Negligible Adverse (Not Significant). • Viewpoint VP15 – Till Bridge Lane and Middle Street(construction, operation (year 1 and year 15) and decommissioning) - Negligible Adverse (Not Significant). • Transport Receptor – T005 / Lincoln Lane - between Tillbridge Lane & Church Lane

				(construction, operation (year 1) - Negligible Adverse (Not Significant). • Transport Receptor – T058 / Northern Railway - Saxilby to Gainsborough (construction, operation (year 1 and year 15) and decommissioning) - Minor Adverse (Not Significant). More detail is provided within **6.3.8.2 Environmental Statement - Appendix 8.2 Assessment of Potential Landscape Effects [APP-073], 6.3.8.3 Environmental Statement - Appendix 8.3 Assessment of Potential Visual Effects [APP-074**] and within the **Supplementary Landscape and Visual Effects Tables [REP1-058** and **REP1-059]**
7A-147	LVIA	BNG	Biodiversity and biodiversity net gain claims have been shown to be lacking validity. The proposals in the West Burton Solar Project to remove existing and mature trees and hedgerows equate to immediate and extensive habitat loss and indeed to potentially eradicate all trees and hedgerows in the vicinity of the sites of the WBSPP is significant in terms of Biodiversity. Removal of established vegetation means species loss and consequentially	In certain locations where existing accesses do not exist, some very minor hedgerow removal is necessary to accommodate the access road between fields, land parcels and solar panel areas. Hedgerows to be removed are set out in the Hedgerow Removal Plans in Appendix C of **WB7.3_B Outline Landscape and Ecological Management Plan [EN010132/EX3/WB7.3_B]** This removal will involve only very short sections of hedgerow to accommodate internal access roads and will not involve loss of trees, in particular trees protected under any Tree Preservation Orders (TPOs). The OLEMP is secured through

			biodiversity loss as established trees and hedgerow already have a biodiversity value.	Requirement 7 in Schedule 2 to the draft DCO **[EN010132/EX3/WB3.1_C].** Where these minor areas of hedgerow removal are required, it is to enable access for the construction phase only. These areas are not required as operational accesses, so vegetation will be reinstated as secured by Requirement 13 of Schedule 2 of **WB3.1_C Draft Development Consent Order Revision C [EN010132/EXA/WB3.1_C]** once construction is complete **(**see table 3.3 of **WB7.1_B Outline Construction Environmental Management Plan Revision B [EN010132/EX3/WB7.1_B]**
7A-148	LVIA	Soils	The ALC findings supplied by the Applicant are in general in line with MAFF 1988 Guidelines and Natural England Technical Information Note TIN049. The findings of the ALC report essentially identify 73.5% of the site as Grade 3b, 22.8% as 3a, 1.3% as grade 2 and 2.3% as grade 1. Therefore, there is a significant amount of BMV land within the Order Limits. The 7000 Acres Group argues that a full ALC needs to be carried out to identify the Grades and land quality in the WBSP. The current assessment does not fully test the area.	The ALC Applicant has provided detailed ALC assessment following the guidance given in Natural England's TIN049 document. Natural England have reviewed the Applicant's ALC and state that *"Natural England are satisfied that the detailed ALC survey undertaken across the order limits is appropriate."* [REP1A-008]. Yield is not used to assess ALC Grade.

			The Applicant has not explained the use of Best and Most Versatile land for the proposed development. Soil analysis results have also proven inadequate in terms of yield.	
7A-149	LVIA	Mental health and wellbeing	Negative impacts on mental health and wellbeing and enjoyment of the landscape as it exists have been highlighted. This infringement on the health and social benefits people gain from the recreational value and use of PRoW's, coupled with any cumulative effect from potential development of the Gate Burton, Cottam and Tillbridge Schemes, means that people's mental and health and wellbeing will suffer. Some members of the 7000 Acres Group have shared with us that they already feel anxious and worried about the prospect of these proposed solar developments and that their mental health and wellbeing has been harmed as a consequence. If the proposed development goes ahead, the likelihood is that these harms or negative effects will be worsened.	The Applicant is cognisant of the significance of the countryside for physical and mental wellbeing and, as such, likely impacts on the desirability and use of recreational facilities in the countryside, such as public rights of way, have been assessed in Section 18.7 of **6.2.18 Environmental Statement - Chapter 18 Socio Economics Tourism and Recreation [APP-056]**. The greatest level of effect to access, desirability and use of recreational facilities is limited to short- to medium-term moderate adverse effects on long distance recreational routes (the Trent Valley Way and National Byways) during construction (see Table 18.15 and para. 18.7.62). This is a **significant adverse** effect. This is however the only significant effect anticipated, with no greater than moderate-minor adverse anticipated to any other recreational receptor during construction (see paras. 18.7.60 to 18.7.69), or to any recreational receptor during operation (see paras. 18.7.107 to 18.7.117) and decommissioning (see paras.

				18.7.147 to 18.7.157). These effects are not anticipated to be significant. This is re-iterated in Section 21.5 of **6.2.21 Environmental Statement - Chapter 21 Other Environmental Matters [APP-059]**. The cumulative effects of the identified schemes (including the four identified by 7000 Acres) are assessed in Section 18.10 of **6.2.18 Environmental Statement - Chapter 18 Socio Economics Tourism and Recreation [APP-056]**. The greatest level of cumulative effect to access, desirability and use of recreational facilities is anticipated during construction (see paras. 18.10.28 to 18.10.32). These effects are anticipated to be significant and adverse, albeit short-term for the cumulative construction phase only.
7A-150	LVIA	Tranquillity	It is clear, from the conversations the group has had with residents from the neighbouring villages to the West Burton Solar Project, they value the peace and quiet of the landscape setting and that the proposed negative impacts of the transport noise, construction and industrial development will significantly harm that degree of peace and/or tranquillity. Finally, the landscape as a whole is much loved and enjoyed by users and local communities. The members of our group regularly convey their	Section 3.3 of **7.11 Statement of Need [APP-320]** describes Government's view that large capacities of low-carbon generation will be urgently required to meet increased demand and replace output from retiring (fossil fuel) plants, and that "a secure, reliable, affordable, Net Zero consistent system in 2050 is likely to be composed predominantly of wind and solar". It is the Applicant's view (and this aligns with Government's view) that large scale solar must be

			dismay and disbelief that such a vast solar scheme is being considered to cover the landscape in our region. It is clear to our members that the harms significantly outweigh any perceived benefits and as such we continue to argue our case before the Examining Authority.	deployed to meet the urgent national need for low-carbon electricity generation. Section 7 of **7.5_A Planning Statement Revision A [EN010132/EX3/WB7.5_A]** concludes with a consideration of the Planning Balance and justifies how the overwhelming national need, as demonstrated in the Statement of Need outweighs any potential significant adverse impacts which, as the **Environmental Statement [APP-039 to APP-061]** sets out, are limited. The Scheme has been designed to enhance and retain the open character of the landscape, where applicable, including recognition of the existing landscape pattern and features that give the Site/s and the 5km Study Area its unique open character. Effects on landscape character will be experienced at the local level and it is recognised that some features will undergo change, but the majority of the key characteristics that contribute to openness will not be altered.

2.14 National Policy Statements and Application of Planning requirements

7000 Acres – National Policy Statements and Application of Planning requirements [REP1A-021]

Reference	Theme	Issue	Summary of Issue Raised	Applicant's Response
7A-151	National Planning Policy	Planning Statement	7000Acres is concerned that the Applicant has not provided sufficient explanation for their conclusions and that some of their supporting evidence is flawed. There are no National Policy Statements that support a solar industrial complex of this size. We recommend that the ExA give considerable weight to the National Planning Policy Framework and the Skidmore Review, especially the elements concerning local health and wellbeing. These explicitly address the need for local consultation and welfare to be central to the planning process. **Cumulative impact.** The Applicant has failed to take due account of the cumulative impact of the five NSIPs in the region. **Alternative locations.** The Applicant has made this application based on where it can obtain a large area of land that meets its business case. It has then reverse engineered its EIA to fit the available land.	No technology specific NPS currently has effect so the Scheme will be determined in accordance with Section 105 of the PA 2008, as acknowledged in paragraph 1.3.5 of **7.5_A Planning Statement Revision A [EN010132/EX3/WB7.5_A]**. However, NPS EN-1 (2011), NPS EN-1 (November 2023) and NPS EN-3 (November 2023) are important and relevant matters. The Applicant undertook two phases of community consultation where it shared information about the Scheme and invited feedback at different stages of the Scheme development. The consultation process is described in Chapter 2 of **WB5.1 Consultation Report [APP-022].** The applicant has undertaken extensive consultation with stakeholders in the local area, in order to fully understand the concerns and perceptions of people living in the area. The Applicant identified a list of seldom heard groups in order to ensure that all areas of the community were made aware of the Scheme and had an opportunity to make comments, whether on risk or otherwise. As confirmed in Table 7.3 of **WB5.1 Consultation Report [APP-022]**, the

			Carbon assessment. The Applicant has not provided a detailed breakdown of their calculations. Furthermore, some of the descriptions do not explain how they arrived at their conclusions and why some assumptions were applied. **Battery Energy Storage System (BESS).** The Applicant has provided no evidence why a BESS of this size is required, why its capacity should be uncapped and why it needs to trade energy with the National Grid. 7000Acres believes that the BESS is an "additional revenue for the applicant, in order to cross-subsidise the cost of the principal development". **Biodiversity.** There is no clear evidence that utility scale solar farms increase biodiversity. The Applicant has not clearly demonstrated they meet the requirements of the Environment Act 2021. **Use of a Rochdale Envelope.** The Applicant has not complied with even the most basic requirements of Advice Notice Nine. The Applicant's use of a Rochdale Envelope has resulted in insufficient information being made available to interested parties in a timely manner. Either the Applicant does not have a	Applicant undertook dialogue and communication with the identified seldom heard groups and welcomed other groups to provide feedback through the free-to-use communication channels as publicised. The seldom heard groups listed in the SoCC were treated as Section 42 consultees, and therefore received a covering letter, accompanied by a copy of the Section 48 notice and site location plan, on or before the start of the 42-day consultation period. The cumulative impacts of the four NSIPs Cottam, Gate Burton, West Burton and Tillbridge have been considered within the **WB8.1.9_B Report on the Interrelationship with Other National Infrastructure Projects [REP2-010].** The selection of the Scheme's location has followed a systematic step-by-step process as set out in detail within **WB6.3.5.1 ES Appendix 5.1 Site Selection Assessment [AS-004].** This took a sequential approach to the consideration of potential sites for the Scheme. As paragraph 3.3.22 states, the Scheme maximises the utilisation of low grade, non best and most versatile (BMV) agricultural land with 95.9% of the land being classified as non BMV land. The land required for the Scheme has been demonstrated within **WB6.3.5.1 ES Appendix 5.1 Site Selection Assessment [AS-004]** to perform

			coherent plan for their scheme, or they are deliberately changing the details to prevent public scrutiny; either reason is unprofessional and unacceptable. **Timescale.** The 60-year period of the scheme is not "temporary use" of the valuable farmland. EN-3 states than an upper life of 40 years is typical, with some ExA stating that even 40 years is not temporary use	better than 8 of the assessed Potential Development Areas (PDAs) and equal to the remaining one following the site selection process. Consequently, it has been concluded that there are no obviously more suitable locations for the Scheme within the Search Area. The Climate Change ES Chapter **[REP1-012]** sets out the calculation methods and assumptions made in Section 7.8. Assumptions were applied where there were gaps in knowledge or uncertainty around future emissions values. It is considered that all assumptions made are reasonable and useful for determining the overall conclusion and impact of the scheme with regards to Climate Change. Section 11.5 in **WB7.11 Statement of Need [APP-320]** explains how electricity storage (BESS) will play an important role in the development of a low-carbon energy system in the UK. Electricity storage may be connected as a standalone asset or collocated with a renewable generation scheme. Because the Scheme's grid connection agreement provides both import and export capacity, it enables the Scheme to contribute to meeting the national need for electricity storage by including, as associated development, an electricity storage asset which supports the operation of the principal solar development and provides the ability to balance the

				electricity produced by the solar scheme, with demand on the National Electricity Transmission System. Section 4, paragraphs 4.5.21 to 4.5.26 of **7.5_A Planning Statement Revision A [EN010132/EX3/WB7.5_A]** sets out that the BESS proposed as part of the Scheme is designed to provide peak generation and grid balancing services to the electricity grid by allowing excess electricity generated either from the solar PV panels, or imported from the electricity grid, to be stored in and dispatched when required. The **WB6.3.9.12 ES Appendix 9.12 Biodiversity Net Gain Report [APP-088]** and detailed Landscape Mitigation Plan, which will be substantially in accordance with the **Outline Landscape and Ecological Management Plan (LEMP) [EN010132/EX3/WB7.3_B],** is secured by Requirement 7 of Schedule 2 to the draft DCO **WB3.1_C Draft Development Consent Order Revision C [EN010132/EX3/WB3.1_C].** The BNG Report and Plan identify how the Applicant will meet habitat creation, management and enhancement objectives. Use of the Rochdale Envelope is an approach recognised by PINS, as set out within Section 4.3 of **6.2.4 Environmental Statement - Chapter 4 Scheme Description [APP-042].**The need for

				flexibility in design, layout and technology is recognised in National Policy Statement EN-1 as elements of a development may not be finalised. The Applicant has amended the Scheme to require decommissioning to take place no later than 60 years following the date of final commissioning. This is secured in Requirement 21 in Schedule 2 of the draft DCO **WB3.1_C Draft Development Consent Order Revision C [EN010132/EX3/WB3.1_C].** A Soils Resource Management Plan (SRMP), substantially in accordance with **6.3.19.2_A ES Appendix 19.2 Outline Soil Management Plan Revision A [EN010132/EX3/WB6.3.19.2_A]** will be submitted and approved prior to the commencement of development as secured by Requirement 19 of Schedule 2 of the draft DCO. The aim of the SRMP is to avoid the loss of soil material and soil functional capacity for supporting agricultural production from the Site.

2.15 Noise

7000 Acres – Noise [REP1A-022]

Reference	Theme	Issue	Summary of Issue Raised	Applicant's Response
7A-152	Noise	Health and Wellbeing	We are convinced, that given that this project is close to human inhabitants, there needs to be further evaluation carried out, to ensure that people in this area will not be impacted with resultant effects on health and wellbeing. One cannot convincingly work out the projected noise from transformers, inverters and cooling fans, given that it is only a guess, as in quiet environments we know that sound travels and is subjective. 15.7.55 confirms that transformer and invertor noise manufacturer's data does not contain octave-band data (i.e., frequency sound data), so this needs clarification. No reference to how noise will impact vulnerable people. At West Burton 3, a 3-metre acoustic barrier has been included. Are these noise impact protections in place for the entire lifetime of the scheme, and if deemed as needed then it was considered that noise from the site is such that it will impact on quality of life. How confident is the inspector that further sites might have similar	**Introduction** The comments presented by 7000 Acres cover a varied array of topics and points. The topic areas have been summarised in the list below and to each of these topic areas has been responded to in turn. • Assessment of the effect on health and wellbeing on a variety of sensitive receptors some with complex medical needs. • Tranquillity • Source Sound Level Levels & Technical Acoustic Questions **Assessment of Noise Impacts on Health & Wellbeing** 7,000 Acres have raised a number of points relating to the assessment of health and wellbeing on local residents in the vicinity of the Scheme. 7,000 Acres state that the assessment presented in the **Noise and Vibration Environmental Statement (ES) chapter [APP-053]** does not differentiate between sensitivity of receptors. The assessment undertaken has been carried out in accordance with the requirements of Infrastructure

			problems, given this area is not undulating and that there is not much to absorb sound? From a medical point of view, some people suffer from a condition called hyperacusis. It is estimated that this affects about 2% of the adult population. There is also a concern around the causes of tinnitus and whether a prolonged exposure to this type of continuous noise, e.g., the low hum or higher frequency noises could potentiate this condition. We do know that stress, anxiety and depression can cause tinnitus. Does the scheme take into account "background creep" where operational noise emissions from nearby developments are designed to achieve operational noise limits that do not contribute to additional noise in the area? How do we know these thresholds are not breached where the noise will exceed and effect human health and wellbeing? We argue the very point because the entire 4 now 5 schemes should have been seen as one. Hence a Health Impact Assessment, a good Equality Impact Assessment where for example, the blind are identified in the Local Impact Area could be affected as they have acute hearing to compensate.	Planning (Environmental Impact Assessment) Regulations 2017, (the EIA Regulations) the Noise Policy Statement for England (NPSE), National Planning Policy Framework (NPPF) and Local Planning policies. The EIA Regulations requires that the EIA must identify, describe and assess, in an appropriate manner the direct and indirect significant effects of the proposed development on population and human health (see paragraph 4 of Schedule 4 of the EIA Regulations Part of the EIA scope). The EIA has assessed the impacts to human health and populations as a result of noise and vibration during the construction and operational phases of the Scheme. **Environmental Statement Chapter 15: Noise and Vibration [APP-053]** presents the assessment of direct indirect significant effects from noise and vibration on human health. As stated in **Environmental Statement Chapter 23: Summary of Significant Effects [APP-061],** no significant residual effects resulting from noise are predicted during construction, operation and decommissioning of the Scheme. *Construction Phase* Impacts resulting from construction noise and vibration on human receptors have been assessed

				as part of **Noise and Vibration Environmental Statement (ES) chapter [APP-053]** The construction phase regarded as a short-term direct impact and impact is assessed using the guidance in British Standard 5228-1:2009+A1:2014 - Code of practice for noise and vibration control on construction and open sites –Part 1: Noise. Significant impacts are assessed on changes in noise level against the baseline using the ABC method or by setting a fixed absolute limit for all construction work at receptors. The limit is set based on the nature of the receptor setting. The two fixed limits are as follows; • 75dB LAeq,10hr in urban areas near main roads and in heavy industrial areas • 70dB LAeq,10hr in rural, suburban and urban areas away from main road traffic and industrial noise **Noise and Vibration Environmental Statement (ES) chapter [APP-053]** has considered construction noise using the guidance above, and the conclusion is that the noise effects are not considered to be significant, when the implementation of mitigation is accounted for. Measures to ensure that construction noise levels are appropriately managed are set out in Table 3.6 of **WB7.1_B Construction Environmental Management Plan (CEMP)**

				[EN010132/EX3/WB7.1_B] (see also paragraph 2.5). Provision of a detailed CEMP post-consent is secured by Requirement 13 of Schedule 2 of **3.1_C Draft Development Consent Order Revision C [EN010132/EX3/WB3.1_C]** that will manage and minimise the environmental impact of the works, not just for noise and vibration, but for all impacts during the construction phase. Based on the assessment carried out there are expected to be no significant adverse effects during the construction phase. *Operational Phase* The assessment process and methodology identifies, describes and assesses the impact and makes a determination of significance. The determination of adverse significant impact corresponds to a Significant Observed Adverse Effect Level (SOAEL) in the NPSE terms, whilst impacts that are not considered significant are either at the Lowest Observed Adverse Effect Level (LOAEL) or No Observed Adverse Effect Level (NAOEL) or No Observed Effect Level (NOEL) in NPSE terms. The methodology for determining the SOAEL, LOAEL and NOEL thresholds is based on the guidance in British Standard 4142:2014+A1:2019 - Methods for

				rating and assessing industrial and commercial sound. This method presents the following assessment categories and the Applicant has included its application of NPSE SOAEL, LOAEL and NOAEL/NOEL levels to this: • SOAEL - a difference in the Rating Level (LAr,T dB) and background sound level (LA90,T) of +10dB has the potential to have a significant adverse impact, depending on context. • LOAEL - a difference in the Rating Level (LAr,T dB) and background sound level (LA90,T) of +5dB has the potential to have an adverse impact, depending on context. • NOAEL or NOEL - The lower the rating level is relative to the measured background sound level, the less likely it is that the specific sound source will have an adverse impact or a significant adverse impact. Where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact, depending on the context. Additional context in this case is added in such that the background sound levels are very low, and the impact is likely to be more acute at night when people are asleep. To add additional context to the

				assessment, a noise intrusion assessment was carried out and applied the internal sound level criteria in World Health Organisation (1999) Guidelines for Community Noise and British Standard 8233 – Guidance on sound insulation and noise reduction for buildings.
				
				This guidance document sets out internal levels to be achieved in living room and bedroom spaces in the daytime and night-time period. These levels are as follows;
				
				• Daytime (07:00-23:00) in Living Rooms and bedrooms 35-40dB LAeq,16hr
				• Night-time (23:00-07:00) in bedrooms 30-35dB LAeq,8hr and 45dB LAFmax
				
				Based on the above the following SOAEL, LOAEL and NOAEL/NOEL bands have been applied:
				
				• SOAEL
				  ○ Living Rooms >40dB LAeq,16hr
				  ○ Bedrooms >35dB LAeq,8hr and >45dB LAFmax
				• LOAEL
				  ○ Living Rooms 35-40dB LAeq,16hr and
				  ○ Bedrooms 30-35dB LAeq,8hr and >45dB LAFmax
				• NOAEL/NOEL
				  ○ Living Room <35dB LAeq,16hr

				○ Bedrooms <30dB LAeq,8hr and <45dB LAFmax Utilising the above criteria to determine significance of effect, computer modelling has been used to predict sound levels, using worst case assumptions (these are dealt with in the section below) to enable the assessment to be carried out. The policies, guidance and methodologies involved do not allow for differentiation for different demographics and for people with varying medical needs. The assessment has considered the policy advice and judged the scheme in accordance with those parameters. It is not feasible to assess for differences in receptors sensitivity and the policy of the day does not require that this be the case. The assessment presented offers fair, well thought out and objective assessment of the impacts judged against the relevant planning polices and guidance documents. The assessment has concluded that there are no significant adverse impact from noise during the operational phase of the Scheme. Table 3.6 of the Outline Operational Environmental Management Plan, as secured through Requirement 14 in Schedule 2 to the **WB3.1_C Draft Development Consent Order Revision C [EN010132/EX3/WB3.1_C].** secures measures that

				will control noise throughout the operational lifetime of the Scheme. Furthermore, provision of an operational noise assessment is secured by Requirement 16 of Schedule 2 of **WB3.1_C Draft Development Consent Order Revision C [EN010132/EX3/WB3.1_C].** which requires that "No part of Work Nos. 1, 2, 3, or 4 may commence until an operational noise assessment containing details of how the design of that numbered work has incorporated the operational mitigation measures set out in Section 15.6 of Chapter 15 of the environmental statement for that part has been submitted to and approved by the relevant planning authority". un **Technical Acoustic Clarifications** A number of technical points have been raised relating to source sound levels and acoustic modelling have been raised. I have They are dealt with on a point-by-point basis below; • The effect of woodland and vegetation is raised and the point that there is little greenery and woodland to absorb the sound. Vegetation and woodland do not absorb or attenuate sound very efficiently. The effect of woodland and vegetation

				would be negligible and is not a consideration when prediction of sound levels is carried out. • The worst-case scenario, which forms the basis on which the noise and vibration assessment has been undertaken, assumes that all transformers, inverters, and cooling plant is 100% operational during both daytime and night-time periods. It is expected that this would happen very rarely during the day and never at night. In accordance with the EIA Regulations, the Applicant considers that the effects presented Chapter 15 **[APP-053]** present a worst case scenario of potential noise effects. As stated in **Environmental Statement Chapter 23: Summary of Significant Effects [EN010132/EX3/WB6.2.23_B],** no significant residual effects resulting from noise are predicted during construction, operation and decommissioning of the Scheme. • The noise level is anticipated to vary throughout the day when different loads from demand are placed from the National Grid and due to the varying intensity of sunlight. These changes in demand happen gradually and any increase or decrease in noise will be gradual. However, the

				assessment has assumed an absolute worst-case of all plant operating at 100% capacity. • The candidate plant has been analysed and no low frequency tones or hums were identified in the spectral dataset. The noise arising usually occurs from the cooling fans and this sound is normally very broadband in nature. • The solar panels will emit no sound. The only sound to be emitted will be associated with the inverters, transformers, and cooling plant on the battery energy storage units. • Plant items situated internally will benefit from attenuation from the building itself. A normal brick-built building will reduce sound by 40-45dB overall. When plant is placed internally the sound level can increase due to a reverberant field being created, however this increase is off set by the additional attenuation offered by the building. The source sound levels used in the modelling are based on candidate transformers, inverters, and cooling HVAC equipment for battery energy storage. The source sound levels are based on manufacturers tested sound levels measurements and are considered robust. As stated above, provision of an operational noise assessment is secured by Requirement 16 of Schedule 2 of

				WB3.1_C Draft Development Consent Order Revision C [EN010132/EX3/WB3.1_C] which requires that "No part of Work Nos. 1, 2, 3, or 4 may commence until an operational noise assessment containing details of how the design of that numbered work has incorporated the operational mitigation measures set out in Section 15.6 of Chapter 15 of the environmental statement for that part has been submitted to and approved by the relevant planning authority".

2.16 Socio-Economics and Land Use

7000 Acres – Socio-Economics and Land Use [REP1A-024]

Reference	Theme	Issue	Summary of Issue Raised	Applicant's Response
7A-153	Socio-Economics	Methodology	Within the Environmental Statement (ES), the Applicant has, through careful selection of the Study Area and ranges of impact, sought to create an impression of limited impacts of the scheme on the area: • The Study Area used by the Applicant to reference baseline conditions has been chosen very widely, across Bassetlaw and West Lindsey, thereby avoiding having to highlight the specific socio-economic difficulties of Gainsborough, the nearest town to much of the West Burton Solar Project (CSP) • The same breadth of area has been used by the Applicant as reference area for considering employment and economic activity, which has an averaging effect on the assessment, and therefore also fails to highlight the specific socio-economic difficulties of Gainsborough. • The Applicant has therefore failed to consider the immediate impacts on communities closest to the proposed scheme.	The Applicant disagrees with this comment. As set out in ES **Chapter 18 Socio Economics Tourism and Recreation [APP-056],** at paragraph 18.4.1, the Local Impact Area (LIA) was selected on the basis of principles of best practice and experience, defining the LIA by the area likely to be impacted by socio-economic, tourism and recreation impacts. The combined areas of Bassetlaw District and West Lindsey District were chosen as the LIA, as set out in paragraph 18.4.1, due to the geographic expanse and scale of the Scheme. Finer-grain impacts have been assessed where appropriate, such as for recreational facilities and key tourism attractions. The selection of a Local Impact Area defines by administrative boundaries has the additional benefit of benefitting from a wider range of comparable up-to-date baseline information. The Applicant also notes the inclusion of a joint district area assessment in the form of the Local Impact Area was welcomed by Bassetlaw District Council (see Table 18.1).

				The Applicant does not accept that it has failed to consider the impact of the Scheme on the communities closest to it.
7A-154	Socio-Economics	Deprivation	To carry out a of socio-economic review of the area around the WBSP and not acknowledge or address the deprivation issues of Gainsborough is either misleading, partial, or superficial, and should further serve to render the assessment inadequate. • The ES is misleading in its description of the region, in terms of economic activity, and education, concluding these to be consistent with regional and national rates. Considering the area with a greater level of resolution shows the significant scale of deprivation issues facing the community of Gainsborough. • The ES tries to equate the improved wealth of a few land owners through uplifted ground rent to a wider GVA benefit per worker across the LIA, where no such benefit will be felt.	The Applicant disagrees with this comment. The Applicant recognises the LIA (Bassetlaw and West Lindsey Districts) as being more likely to be deprived of employment, education and skills, and suitable incomes (see para. 18.5.30 in **WB6.2.18 ES Chapter 18 Socio Economics Tourism and Recreation [APP-056]**. The Scheme, through the measures set out in Section 5 of **WB7.10 Skills Supply Chain and Employment Plan [APP-319],** seeks to improve local access to employment, and improve local education and skills attainment across the lifetime of the Scheme. These measures are anticipated to bring significant beneficial effects during construction, as assessed in para. 18.8.11-13 in **WB6.2.18 ES Chapter 18 Socio Economics Tourism and Recreation [APP-056]**. The Applicant confirms that a Skills, Supply Chain and Employment Plan is secured by Requirement 20 of Schedule 2 to **WB3.1_C Draft Development Consent Order Revision C [REP1-006].** Where applicable and practicable, fine-grain data at the individual District level, or District Ward level, has been used to determine the

				sensitivity of receptors including indices of deprivation and access to primary healthcare (see paragraph 18.4.1 and 18.4.2 of **WB6.2.18 ES Chapter 18 Socio Economics Tourism and Recreation [APP-056]**). Although not identified explicitly, Gainsborough is included within the LIA. It is an area with very high rates of deprivation with regard to suitable income, access to employment, and education and skills attainment, which has contributed to the determination that access to employment and access to education are high sensitivity receptors. Whilst it is recognised that ground rent uplift will only directly benefit those landowners, there is anticipated to be an indirect and induced benefit to the wider economy in the Local Impact Area as a result of increased spending, such as, for example, in the retail and services industries, and investment by these landowners into local enterprises. Resultantly, the assessment has considered the change to the economic Gross Value Added as a result of the Scheme is an additional £2,200,000 to the overall economy in the LIA.
7A-155	Socio-Economics	Employment	The ES understates the likely impact of employment loss arising from the loss of agricultural land and lacks transparency in its	**6.2.18 ES Chapter 18 Socio Economics Tourism and Recreation [APP-056]** states that the Scheme is anticipated to lead to a maximum

			assessment of any jobs lost, or the nature of any jobs created. • Limited interpretation of likely roles would suggest that any job creation locally will be in lower skilled, lower paid roles, and be unlikely to sustain livelihoods in the same way that jobs lost from agriculture. • There is little or no community benefit through employment from the development, in an area that is in desperate need of jobs and prospects. The loss of farming livelihoods therefore can only be seen as an erosion of opportunity. • The Applicant refers to the loss of 13 agricultural jobs is being detailed in ES Chapter 19: Soils and Agriculture (in 18.7.15 of ES Chapter 18). The author was not able to find any analysis of jobs / employment loss in this chapter, therefore the basis upon which the number of agricultural jobs lost has been calculated cannot be scrutinised.	loss of approximately 13 full-time equivalent (FTE) agriculture jobs (see para. 18.7.15), whilst the Scheme is estimated to employ 6 full-time equivalent employees from the local area during operation (Table 18.16 **[APP-056]).** The net changes to employment, and to economic Gross Value Added (GVA) in the local area (defined as West Lindsey and Bassetlaw districts) are: For construction: • +432 FTE jobs (para. 18.7.21 **[APP-056]**); • +£20.0 million per year (para. 18.7.52 **[APP-056]**); For operation: • -2 FTE jobs (para. 18.7.81 **[APP-056]**); • +£1.5million per year (para. 18.7.99 **[APP-056]**); For decommissioning: • +324 FTE jobs (para. 18.7.129 **[APP-056]**); • minor beneficial impact to GVA (para. 18.7.139 **[APP-056]**). To support this, Sections 5.3 and 5.4 of **WB7.10 Skills Supply Chain and Employment Plan [APP-319],** outline the measures the Scheme is

				taking with regard to maximising opportunities for sourcing local employment, recruitment and supply chains. These measures are secured by Requirement 20 of Schedule 2 to **WB3.1_C Draft Development Consent Order Revision C [EN010132/EX3/WB3.1_C].** As a result of these measures, **WB6.2.18 ES Chapter 18 Socio Economics Tourism and Recreation [APP-056]**. assesses that the Scheme is anticipated to have significant beneficial effects on access to employment (para. 18.8.12) and education (para. 18.8.13) as measured indices of deprivation during construction. During operation, these are anticipated to have a long-term minor and moderate-minor beneficial effect respectively (para. 18.8.18-19). The Applicant clarifies that **WB6.3.19.1 ES Appendix 19.1 Agricultural Land Quality Soil Resources and Farming Circumstances [APP-137],** at Section 7, details agricultural employment rates at each of the farm business who occupy the Order Limits. Farm Business A has eight full time staff including the owner. It also employs a neighbouring farmer part time to assist with peak work load. Farm Business B employs three and a half full time equivalent staff including the owner. Farm Business C uses

				agricultural contractor services and has no staff in addition to the farm owner. Farm Business D has no employees in addition to the owner who is seeking to retire from farming. Not all farm employment would be lost as units will continue to manage agricultural land. The 13 agricultural jobs potentially affected as a result of the Scheme is equivalent to 0.3% of the agricultural employment in the Local Impact Area, as set out in para. 18.7.15 of **WB6.2.18 ES Chapter 18 Socio Economics Tourism and Recreation [APP-056].**
7A-156	Socio-Economics	Land Use/ Amenity	The ES omits any consideration of efficiency of land use, nor does the ES consider the additional demands on agricultural land for planting trees, establishing peatlands and growing energy crops for biofuels, as identified by the UK Climate Change Committee in its 6th Carbon Budget. By omitting such important considerations, the sensitivity impacts of loss of land are understated. The Applicant acknowledges the proportion of people within the LIA who regard themselves as having "bad" or "very bad" health is already above the national average. By adversely affecting local amenity, the scheme would therefore exacerbate the existing health and wellbeing issues faced by the region. The Consent Order should ensure that	Paragraph 7.6.8 of **WB7.11 Statement of Need [APP-320]** states that: "Draft NPS EN-3 includes an anticipated range of 2 to 4 acres for each MW of output generally required for a solar farm along with its associated infrastructure." The Scheme as proposed delivers a large-scale solar generation asset which is consistent with this range, as is described through paragraphs 4.2.1 to 4.2.3 of **6.2.4 Environmental Statement - Chapter 4 Scheme Description [APP-042].** Table 7.1 of **WB7.11 Statement of Need [APP-320]** shows the electricity generated per hectare by different low-carbon technologies. At the UK's average solar load factor (11%), solar generation produces much more energy per

			the potential for properties and communities to be affected by blight are properly considered and potential remedies are available.	hectare than biogas, and generates a similar amount of energy as onshore wind. Solar generation is therefore an efficient use of land. The Applicant is cognisant of the significance of the countryside for physical and mental wellbeing, and so this has been assessed as part of the assessment of human health impacts, primarily in **WB6.2.18 ES Chapter 18 Socio Economics Tourism and Recreation [APP-056].** The greatest level of effect on wellbeing is a moderate-minor adverse effect to access, desirability and use of recreational facilities in the countryside, anticipated during construction (see para. 18.7.60 to 18.7.67) and decommissioning (see para. 18.7.143 to 18.7.153). These effects are not anticipated to be significant. The Applicant understands in this instance that blight is in reference to perceived depreciation in value of property. Consideration of the impact of the construction, operation and decommissioning of the Scheme on accommodation stock in **WB6.2.18 ES Chapter 18 Socio Economics Tourism and Recreation [APP-056]** identifies beneficial significant impacts to accommodation stock (housing). There is no strong evidence to show solar farms

				negatively affect nearby property value, and it is more likely that other factors are more significant to changes in property value. Furthermore, the Applicant is committed to providing a Community Benefit Fund (see paragraph 4.8.1 of **7.5_A Planning Statement [EN010132/EX3/WB7.5_A].** This fund will be available for community-based benefits such as (but not limited to) promoting the use of public rights of way and installing information boards to explain biodiversity enhancement measures within the Scheme. The provision of the Community Benefit Fund itself does not form a part of the DCO Application, and therefore will be agreed separately between the Applicant and the fund's beneficiaries.
7A-157	Socio-Economics	Local Plans	A significant amount of work has been carried out in the region to develop plans for the future of the region. This work has been extremely conscious of climate change and actions to decarbonise the economy, however neither makes any proposals for the development of large-scale ground mounted solar as a contribution to the development of the region. • The industrialisation of an area of Lincolnshire through extensive deployment of large-scale ground mounted solar would serve to undermine	The Applicant considers that the Scheme is consistent with the strategic intentions of national and local planning policy, as set out in **WB7.11 Statement of Need [APP-320]** and **7.5_A Planning Statement [EN010132/EX3/WB7.5_A].** A specific policy accordance review has been undertaken to show that the Scheme is compliant with local planning policy, as set out in Appendix 4: Local Planning Policy Accordance Tables to **7.5_A Planning Statement [EN010132/EX3/WB7.5_A].** This has assessed

			the Agrifood ambitions of the Lincolnshire Industrial Strategy as well as the appeal for visitors and the ambition to improve areas of deprivation through the stimulation of the Visitor Economy. • The Central Lincolnshire Plan sets out objectives for Land Use (protecting the resources of the county) as well as for Climate Change and Energy. Where solar does feature, it is primarily in relation to retrofit to buildings or incorporation into building design. • The CLP sets out policies for Renewable Energy as well as the protection of landscapes. The criteria to be met for a renewable scheme to be acceptable are clear, including considerations of scale, impacts on landscape character, visual amenity amongst other issues. What is also clear is that meeting these criteria would be impossible for a scheme at the scale of WBSP.	the Scheme against both the previous Central Lincolnshire Plan (adopted at the time of the DCO Application's submission), and the new Central Lincolnshire Plan adopted in April 2023. The Applicant reiterates here that great weight should be given to recognising the benefit of the Scheme towards achieving the local and national targets for net zero energy production through renewable energy installations.
7A-158	Socio-Economics	Environmental Statement	Within the ES, having followed its own carefully crafted methodology, the Applicant concludes that the scheme will have only minor adverse or beneficial effects, and completely fails to appreciate the significant impact development at this scale, primarily by using a Local Impact Area that is extremely broad, when many of the impacts will fall on a concentrated area within West Lindsey. When	The Applicant is confident that the methodology used for the assessment in **WB6.2.18 ES Chapter 18 Socio Economics Tourism and Recreation [APP-056]** is robust, is appropriate for the scale of the project, and is compliant with the agreed scope of assessment set out by the Planning Inspectorate in the Scoping

			considering the "in combination" impacts of other NSIP scale solar developments within the same immediate area, conclusions are drawn in a similar way. The ES generally concludes that impacts across the Local Impact Area for population health & wellbeing, disability & long-term health conditions, economic activity and employment are adverse. The assessment fails to consider that these negative impacts will be most severely felt in the concentrated area around the WBSP and other NSIP-scale developments. It is clear that the ES fails to take a sufficiently holistic view in almost every respect, and it would seem to be fundamentally incredulous for development at this scale, or for multiple schemes within the same area, to have minor or negligible consequential impacts. WBSP is inconsistent with local plans and ambitions for the future development of the region.	Opinion **[APP-068]**, the local authorities, and other relevant statutory bodies. Table 18.29 **[APP-056]** provides a full list of the anticipated post-mitigation effects from the Scheme, and the anticipated peak cumulative effects from the developments identified in Tables 18.25, 18.26, and 18.27 **[APP-056].** These range from major-moderate beneficial to moderate adverse effects. The assessment has recognised that a number of impacts will be more prominently felt in the local area immediately surrounding the Scheme, such as deprivation, access to healthcare, and use of recreational facilities. Accordingly, these impacts have been designated greater sensitivity as demonstrated throughout Section 18.5 **[APP-056].** These receptors have been given consistent sensitivity designations across both the assessment of the Scheme in isolation, and in the cumulative assessment.

2.17 The role of Solar in Energy Provision and Decarbonisation

7000 Acres – The role of Solar in Energy Provision and Decarbonisation [REP1A-026]

Reference	Theme	Issue	Summary of Issue Raised	Applicant's Response
7A-159	Climate Change	Energy Need	1. Solar is not part of the of the UK Government's Ten Point decarbonisation plan. 2. The policy framework regarding solar has been a shifting landscape in recent years and continues to evolve. 3. While the ambition for solar development has grown to 70GW of capacity, there is no explicit target for large-scale ground-mounted solar development in the UK. 4. Significant challenges to large-scale ground-mounted solar development are acknowledged, including efficiency of land use, community impacts and environmental impacts. (None of these downsides arise for rooftop solar installations.) 5. Land use is increasingly recognised as being a key challenge and is subject to current Government work to develop a Land Use Framework.	This response is set out at a summary level. Some specific points raised have been addressed in detail below, using the Chapter and Section numbering of the submission **[REP1A-026]** to assist the ExA in their review. **Applicant's summary response** Please refer to the Applicant's responses within **WB8.1.5 Summary of Oral submissions made by Interested Parties at Open Floor Hearing 1 and the Applicant's Response [REP1-051]**, and **WB8.1.6 Written Summary of the Applicant's Oral Submissions & Responses at Issue Specific Hearing 1 and Responses to Action Points [REP1-052]**, in particular Section 4. Section 3.3 of document **WB7.11 Statement of Need [APP-320],** specifically paragraphs 3.3.2, 3.3.5 and 3.3.11, describes the Government's view that large capacities of low-carbon generation will be required to meet increased demand and replace output from retiring (fossil fuel) plants, and that "a secure, reliable, affordable, Net Zero consistent system in 2050 is likely to be composed

			6. The current NPS framework does not include solar. 7. The draft emerging framework (2023) does not foresee ground mounted solar of the scale proposed by CSP. 8. The NPS advocates "good design", including the importance of the functionality of the development. This WR will describe the constraints around the functional contribution solar can make to energy and decarbonisation, which are limited to the point where the benefits do not outweigh the harms arising from ground mounted solar installation at such a large scale.	predominantly of wind and solar". This support for large scale solar as part of the 'answer' to net zero and energy security has been repeated in its recent draft NPS and Powering Up Britain, both published in March 2023. **Table 7.1** of **WB7.11 Statement of Need [APP-320]** shows the electricity generated per hectare by different low-carbon technologies. At the UK's average solar load factor (11%), solar generation produces much more energy per hectare than biogas, and generates a similar amount of energy as onshore wind. Furthermore, paragraph 7.6.8 of **WB7.11 Statement of Need [APP-320]** states that: *"Draft NPS EN-3 includes an anticipated range of 2 to 4 acres for each MW of output generally required for a solar farm along with its associated infrastructure."* The Scheme, as is described in Chapter 4 of **6.2.4 Environmental Statement - Chapter 4 Scheme Description [APP-042],** delivers a large-scale solar generation asset which is consistent with this range. This demonstrates that the proposed location is a suitable site which will provide for an asset which is consistent with government's view of best practice ratios of land take and installed capacity. Figure 8.2 of **WB7.11 Statement of Need [APP-320]** shows how solar is expected to work alongside

				other renewable and low-carbon assets to meet demand throughout the year. The inclusion of batteries as part of the Scheme will allow the Scheme to store energy when it is in abundance and release it to the grid when it is needed. Paragraph 7.6.3 of **WB7.11 Statement of Need [APP-320]** analyses the potential contribution of "brownfield" solar sites to the national need for solar generation. Brownfield sites, including rooftop and other community energy systems, are likely to grow in the UK and will make a contribution to decarbonisation of the UK energy system. However, **WB7.11 Statement of Need [APP-320]** concludes in Section 7.6, that on their own, brownfield developments are unlikely to be able to meet the national need for solar. Paragraph 8.5.10 and Section 8.5 more generally of **WB7.11 Statement of Need [APP-320]** describes and expresses agreement with Government's view that decentralised and community energy systems are unlikely to lead to the significant replacement of large-scale infrastructure. The Applicant therefore supports Government's view that large scale solar must be deployed to meet the urgent national need for low-carbon electricity generation. **Section 1.1 - The Sixth Carbon Budget**

				At Figure 5.2 of **WB7.11 Statement of Need [APP-320]**, the Applicant presents a chart, produced by National Grid ESO, which assesses each of the four pathways set out in their Future Energy Scenarios 2022 report in relation to Carbon Budget targets. The conclusion is clear: the only pathways which are capable of meeting CB6 are those which include a rapid decarbonisation of the UK's electricity system. The Government's Energy White Paper (2020) confirms that "A low-cost, net zero consistent system is likely to be composed predominantly of wind and solar," these points together underpinning the essential contribution of solar generation to national decarbonisation plans and achieving future Carbon Budgets. **Section 1.2 - UK Energy Policy Publications** The Applicant notes that in none of the documents listed does Policy suggest either that large-scale solar is not required, or that rooftop or retrofit solar on their own will meet the need for solar capacity in the UK. Figure 7.1 of **WB7.11 Statement of Need [APP-320]** and related text (Paragraphs 7.2.11 through 7.2.13) explains that the case for urgent decarbonisation increased massively with the commitment to net zero, made in 2019. **Section 1.3 - National Policy Statements**

				The Applicant set out its synthesis of the National Policy Statements in Chapter 3 of **WB7.11 Statement of Need [APP-320]**. **Section 1.4 - The Skidmore Review** The Applicant notes the comments made by 7000 Acres in relation to the need for flexibility and refers to Chapter 11 of **WB7.11 Statement of Need [APP-320]** and the Applicant's inclusion of a battery energy storage facility in order to provide capability to deliver flexibility as part of the Scheme. **Section 2.1 - Solar Capacity** The Applicant notes that 7000 Acres have identified that "One concerning point is the degree to which households are 'likely' to install solar panels in the next 5 years, which is below 25%", the Applicant sets out in Section 7.6 of **WB7.11 Statement of Need [APP-320]** why it, like Government, does not consider rooftop or decentralised solar to be replacement for transmission-scale schemes. At Section 2.1.2, 7000 Acres cites a 2015 study on the German electricity system to illustrate that the UK grid is not suitable for solar. In response, the Applicant brings to the ExA's attention the fact that Germany's cumulative solar capacity surpassed 77.67GW (77,670MW) at the end of September 2023

				with goals to achieve 215GW by 2030. As the market evolves, other measures will facilitate the integration of solar and other renewable generation into the energy system. Chapter 8.8 of **WB7.11 Statement of Need [APP-320]** discusses the system adequacy of solar generation and demonstrates that the 'Generation dependability' of a combined portfolio of wind and solar assets is improved versus a portfolio consisting of just one asset type. **Section 2.1.3 - Curtailment** In relation to comments on curtailment, the Applicant first directs the ExA to Section 7.1 of **WB7.11 Statement of Need [APP-320]** which describes that, according to Government's Energy White Paper (2020), meeting a possible doubling of electricity demand by 2050 *"would require a four-fold increase in clean electricity generation with the decarbonisation of electricity increasingly underpinning the delivery of our Net Zero target."* Figure 7-2 of the **Statement of Need [APP-350]** shows National Grid's projections of installed generation capacity in the UK by 2030 and 2050. Not only is renewable generation capacity expected to increase between now and 2030, but so is flexible capacity (shown as orange in that Figure).

				A significant increase in UK electricity generation capacity is required to meet growing demand and deliver security of supply under different weather conditions. Because the weather is uncontrollable, more capacity is needed to ensure that demand can be met even when renewable output is low. 7000 Acres point to curtailment as a disbenefit of the Scheme and incorrectly cites numbers from National Grid's Future Energy Scenarios document. The Applicant addresses these incorrect statements in three parts. **Firstly**, it is important to put in context, the current reasons for curtailment in the UK, and the prices paid to generators to curtail. Currently, curtailment is experienced on the UK's large-scale wind fleet. Much of this is due to transmission constraints: the transmission wires between the asset, where energy is generated, and the major points of consumption, do not have the capacity to transmit all of the generation. In the 12 months starting 1st October 2022 and ending 30th September 2023, National Grid data records metered wind to be 63TWh. Constraints due to location totalled 3.3TWh (5% of net generation) and constraints due simply to there being 'too much

				wind energy on the system' totalled 0.6TWh, or less than 1% of net generation. Chapter 9 of **C7.11 Statement of Need [APP-350]** describes that the Scheme proposes to connect to a well connected section of the NETS which has available transmission capacity and is unlikely to cause the Scheme to be curtailed. In the event that the Scheme was required to curtail, the inclusion of a BESS as part of the Scheme provides additional tools to the operator to store any excess generation for dispatch to the system when it is needed. **Secondly**, put simply, without the build out of large capacities of renewable generation, the UK may not be able to meet demand at times of low renewable output, potentially causing: • Power cuts (contrary to Government's aim to ensure security of supply) • Price spikes (contrary to Government's aim to shield consumers from volatile energy markets), and/or • Stand-by fossil fuel assets to generate (contrary to Government's aim to decarbonise the electricity system by 2035) The alternative approach, i.e. building out large capacities of renewable generation, meets the

				Government's aims and provides opportunities for market approaches to manage curtailment and: • Use curtailed energy to support security of supply when demand is high • Keep consumer costs down by capturing and storing energy when it is abundant (therefore cheap) and releasing it when it is needed • Displace stand-by fossil assets by using stored energy as a low-carbon "peaking" energy resource, further supporting the Government's aim for the electricity system to be operating with net zero carbon emissions from 2035. Section 8.7 of **WB7.11 Statement of Need [APP-320]** describes four ways of diversifying renewable generation sources to maintain adequacy and minimise curtailment. One of these is the development of Energy Storage Systems. Many different technologies are anticipated to be used for energy storage in the future, and National Grid's FES discusses in detail the prospect of electrolysed hydrogen offering an effective inter-seasonal storage solution (e.g. p192 of FES (2023)).

				The Applicant has included a proposal for a Battery Energy Storage System (BESS) as Associated Development to the main solar development. One of the benefits of the BESS is that it will be able to work as part of the Scheme, and other energy storage systems elsewhere connected to the UK's electricity system, to reduce curtailment, both specifically at the Scheme, and as an additional benefit, more widely. **Thirdly**, 7000 Acres have misrepresented the level of curtailment in National Grid's FES pathways. Data from FES (2023) Table FL.18 shows that average curtailment in the years 2031 – 2040 ranges from 31TWh ('Leading the Way') to 46.8TWh ('System Transformation') however a deeper dive into the data (via Table ES1 of the same report) shows that curtailment of *solar* generation is anticipated to be much lower, with an average annual curtailment 2031-2040 ranging from 2.4TWh - 2.7TWh. In summary, future curtailment, if/when it occurs, would be a 'good' problem for the UK power sector to have. It would show that large capacities of renewable generation have been built out to deliver low-carbon supplies to meet peak demand, delivering security of supply, meeting carbon reduction targets and reducing wholesale costs of

				energy. Further, the market signals associated with curtailment, will drive the development of consumer and/or supply side flexibility to make efficient use of abundant resource and drive further security of supply, decarbonisation and affordability benefits for consumers across the whole energy system. **Section 2.2.1 - Balancing the Electricity Grid** This section makes some observations on demand shape and levels in different seasons in the UK. The Applicant notes that 'security of supply' means 'keeping the lights on' and that is as important in the summer (when for example wind generation tends to be lower but solar generation tends to be higher) as it is in the winter (when wind generation tends to be higher and solar generation tends to be lower). A significant increase in UK electricity generation capacity is required to meet growing demand and deliver security of supply under different weather conditions. Because the weather is uncontrollable, more capacity is needed to ensure that demand can be met even when renewable output is low. Figure 8.2 of **WB7.11 Statement of Need [APP-320]** provides an illustration of solar and wind generation together meeting demand through the different months of the year. **Section 2.2.2 - Flexible tariffs**

				7000 Acres helpfully brings to the examination just one market integration measure – a 'time of use tariff' - which is incentivising consumers to shift demand to where supply is available. There are other measures coming forward, including forms of energy storage, which will continue to support the every-day balancing of supply and demand. The need for flexibility is set out in Chapter 11 of **WB7.11 Statement of Need [APP-320]** and the Applicant and refers to the inclusion of a battery energy storage facility in order to provide capability to deliver flexibility as part of the Scheme. **Section 2.3 Solar Generation Capability** The Applicant has responded to the points raised in each of the sub-sections to this Section below. **Section 2.3.1 - Solar to Power Households** The Applicant refers to **6.2.7 ES Chapter 7 Climate Change Climate Change [REP1-012]** Para 7.8.62 which states that "Energy generation from the Scheme during the first year of operation is estimated to be 945,000 MWh." This is based on the Applicant's illustrative Scheme design and supports the calculations of power generated from the Scheme as expressed as equivalent annual household consumption.

				Section 2.3.2 - Impact of Solar on Market Price Solar will work with other technologies as part of a multi-technology energy system. Picking just one day from a history of data illustrates the need for such a multi-technology approach. The Applicant explains how solar reduces the traded price of electricity in Section 10.2 of **WB7.11 Statement of Need [APP-320]**. Section 10.3 of **WB7.11 Statement of Need [APP-320]** explains that solar generation is already among the cheapest generation technologies in the UK from a levelised cost perspective, it also has near-to-zero marginal costs and therefore will generate energy for consumers whenever it is available. This goes towards Government's aim to manage the affordability of energy. **Section 2.3.3 - Solar gain and energy density** The Applicant would be interested to understand from 7000 Acres, how the ExA should interpret the 'Energy Density' table presented in this section. If the Applicant was permitted to draw its own conclusions from the table, it would be simply that zero-carbon sources of energy are less dense than carbon emitting sources of energy, which is a statement of fact well understood by many but able to be influenced by none.

				Table 7.1 of **WB7.11 Statement of Need [APP-320]** sets out, with sources, the range of electricity generation expected to be achieved per hectare of land, in the UK, by different technologies. The conclusion from this table is clear: that solar and onshore wind generate similar levels of energy per year per unit area of land, and this is significantly more than that produced by biogas. The Applicant recognises that solar is being developed in other countries which are sunnier than the UK but is conscious of the fact that none of those developments reduce the need for solar in the UK, or make solar in the UK any less efficient or effective than the level supported by evidence which the Applicant has provided. Paragraph 8.9.5 of **WB7.11 Statement of Need [APP-320]** quotes from the British Energy Security Strategy: *"If we're going to get prices down and keep them there for the long term, we need a flow of energy that is affordable, clean and above all, secure. We need a power supply that's made in Britain, for Britain"*. [p3] Figure 10.3 and 10.4 of **WB7.11 Statement of Need [APP-320]** shows that solar in the UK, which by virtue of its carbon-and-cost free input fuel (sunlight) has a lower levelised cost of generation than all non-renewable technologies and is set to

				become the lowest cost form of renewable generation in the UK as well. **2.2.4 - Solar and Decarbonisation** It is accepted that some assumptions have been made in the course of calculating the decarbonisation within **WB6.2.7_A ES Chapter 7 Climate Change Revision A [REP1-012].** The CO_2e savings as a result of the crops produced on the land being used as biofuel has not been considered as this would also result in an assessment being required of carbon emissions generated from harvesting, transport and processing etc. of this source. It is considered that not calculating these potential changes in carbon emissions is reasonable and would not alter the conclusions of the Climate Change ES chapter **[REP1-012]** that the solar scheme would result in significantly fewer CO2e emissions when compared to fossil fuel use regardless of existing land-use. The calculations carried out for the Scheme are based on the annual projected energy generation. Assuming this projected energy generation is met, then any variation in energy production vs. demand is accounted for within the calculations. It is accepted that this approach is fairly high-level but it

				is considered that it still provides a useful indication of the decarbonisation offered by the Scheme. When solar generates, it will displace the marginal plant from the electricity system. This means the asset with the highest marginal cost of production, which in the UK is predominantly CCGT due to their requirement to buy gas and offset the carbon emissions associated with each incremental unit of energy produced. The carbon benefit associated with solar generation (and any other low-cost low-marginal carbon emission technology) is therefore the displacement of this carbon-intensive generation from the grid, rather than, as assumed by 7000 acres, the "CO_2 intensity … according to the prevailing constitution of the electricity supply [at the time of generation]". Please also refer to the Applicant's response to comments made in Section 2.1.3 regarding curtailment. The inclusion of a BESS as part of the Scheme provides the opportunity to store low-carbon electricity when it is in abundance and release it to the grid, thereby helping to reduce market prices, at times that it is needed.

2.18 Wildlife and Habitat

7000 Acres – Wildlife and Habitat [REP1A-027]

Reference	Theme	Issue	Summary of Issue Raised	Applicant's Response
7A-160	Ecology & Biodiversity	Ecological Improvements	There is little evidence in support of ecological improvements made by large scale solar developments on temperate agricultural land. Developments of this scale have historically been located in countries such as India, China, Egypt and Australia, with higher solar gains and greater land mass than the UK, often in barren or semi desert landscapes, away from habitation. This land is usually deemed of little value or specific purpose. Ecological impact on these far-flung landscapes would have little in common with the effects of giant solar developments on the UK's important farmland.	Please refer to response 7A-17 in **WB8.1.2 The Applicant's Responses to Relevant Representations [REP1-050]**.
7A-161	Land Use	Land Use	The UKs agricultural land is under constant competition for projects that cannot be realised elsewhere. Land must be given over to these such developments. Solar does not require to be land mounted and is commonly a rooftop installation giving the roof an important secondary function.	Paragraph 7.6.3 of **WB7.11 Statement of Need [APP-320]** shows analyses the potential contribution of "brownfield" solar sites to the national need for solar generation. Brownfield sites, including rooftop and other community energy systems, are likely to grow in the UK and will make a contribution to decarbonisation of the UK energy system. However, **WB7.11 Statement of Need [APP-320]** shows

				concludes in Section 7.6, that on their own, brownfield developments are unlikely to be able to meet the national need for solar. Paragraph 8.5.10 and Section 8.5 more generally **WB7.11 Statement of Need [APP-320]** shows describe and express agreement with Government's view that decentralised and community energy systems are unlikely to lead to the significant replacement of large-scale infrastructure. The Applicant therefore supports Government's view that large scale solar must be deployed to meet the urgent national need for low-carbon electricity generation.
7A-162	Ecology & Biodiversity	Habitat & Biodiversity Loss	The considerable construction period of these massive solar developments with the impact caused spanning many years, would be an intolerable disturbance to all wildlife. With thousands of transient workers and the transportation of millions of solar panel etc... Plus heavy machinery operating 12 hrs a day, all year round, would decimate fragile breeding habitats and destroy soil balance and structure. Removing hedgerows would be catastrophic. Habitat and ecosystems cannot be created overnight with token planting schemes.	Please refer to response ECO-01 in **WB8.1.2 The Applicant's Responses to Relevant Representations [REP1-050]**.

7A-163	Ecology & Biodiversity	Habitat & Biodiversity Loss	Imposing and non-wildlife friendly security fencing is now a requirement at new solar power sites. The many miles of steel fencing required would exclude important mammal species from thousands of acres of their normal habitat, channelling deer, hare and rabbits to existing and newly planted hedgerows, which would be destroyed or seriously damaged in a very short period of time. Biodiversity net gain targets would disturbingly never be achieved.	Please refer to response ECO-01 in **WB8.1.2 The Applicant's Responses to Relevant Representations [REP1-050]**.
7A-164	Ecology & Biodiversity	Mitigation	Mitigation measures fall woefully short, expecting farmland birds to move to isolated fields when they have been maintaining healthy strongholds, naturally selecting their breeding sites from choice. The Developers inexperience of large scale solar deployment in the UK and their naivety of the natural world is clearly demonstrated.	Please refer to responses ECO-01 and ECO-02 in **WB8.1.2 The Applicant's Responses to Relevant Representations [REP1-050]**.
7A-165	Ecology & Biodiversity	Habitat & Biodiversity Loss	The thousands of acres of manmade structures deployed in the countryside by solar farms has been shown to impact bat numbers significantly and must be considered a real and avoidable threat to rare and protected species.	The potential effects on bats have been assessed within Section 9.7 of **6.2.9 ES Chapter 9_Ecology and Biodiversity [APP-047].**

7A-166	Ecology & Biodiversity	Glint & Glare	Glint and Glare from these vast solar schemes are a concern for its effect on birds as well as humans, bird collisions have regularly been reported. With vast swathes of important open countryside lost to solar installations, this could easily have a negative impact on the numbers of protected raptor species in the area.	The Applicant is not aware of any glint and glare issues affecting local wildlife and captive animals. Solar reflections generating from solar panels will be similar to those generated by a body of water (see section 4.1 of **6.3.16.1 ES Appendix 16.1 Solar Photovoltaic Glint and Glare Study [APP-132]**). Therefore, effects upon animals are likely to be similar.
7A-167	Ecology & Biodiversity	Habitat & Biodiversity Loss	Loss of vital insects due to panel attraction, is also well documented. With literally a sea of solar panels in one area. The attraction to this false water would bring a huge ecological unbalance to the area.	Please refer to response ECO-01 in **WB8.1.2 The Applicant's Responses to Relevant Representations [REP1-050]**.
7A-168	Ecology & Biodiversity	Soil health	Artificial microclimate formations around the arrays and in the locality alter ambient temperatures by several degrees, combined with constant shading of much of the soil below is real concern especially on long term soil health, invertebrate habitat and the increased risk of wildfires.	Please refer to response AIR-02 in **WB8.1.2 The Applicant's Responses to Relevant Representations [REP1-050]**.
7A-169	Ecology & Biodiversity	Habitat & Biodiversity Loss	There is no evidence of wildlife benefit from large ground mounted solar schemes in the UK. The only possible improvements would be on the most barren and intensively farmed areas. This proposal is anything but that. With much of the farmland appearing to have been	Please refer to response ECO-01 in **WB8.1.2 The Applicant's Responses to Relevant Representations [REP1-050]**.

			cared for extremely well, demonstrated by its beauty and the abundant flora and fauna.	
7A-170	Ecology & Biodiversity	Habitat & Biodiversity Loss	Any wildlife remaining would be excluded from human enjoyment by this ugly and unnatural landscape. To lose on such an immense scale could be catastrophic not just for impacts on wildlife, but for the pride and ownership of the communities involved and their continued quality of life.	The Applicant respectfully disagrees that wildlife will be excluded from the Scheme. The mitigation measures and enhancements cater for a wide variety of mobile species can be reasonably expected to increase abundance and diversity of groups such as farmland birds, small mammals, reptiles, amphibians and invertebrates and so too the overall abundance locally. Please refer to response ECO-01 in **WB8.1.2 The Applicant's Responses to Relevant Representations [REP1-050]**.
7A-171	Ecology & Biodiversity	Habitat & Biodiversity Loss	The issues highlighted in this report with a worst-case scenario of 10,000 acres of development over 4 projects, means the level of disturbance and impact would be compounded to a level never seen before. With an outcome no one can be sure of.	Please refer to response WLDC-045 in **WB8.1.2 The Applicant's Responses to Relevant Representations [REP1-050]**.