



One Earth Solar Farm

Volume 9: Other Post-Submission Documents

Inter-project Effects with other Nationally Significant Infrastructure Projects and Major Development Schemes [EN010159]

December 2025

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Revision 02

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009
– Reg 5 (2) (a)

Contents

1. Introduction	2
1.1 Purpose of this Report	2
1.2 Structure of this Report	3
1.3 Other Projects Considered in the Report	3
2. Overview of the Other Nationally Significant Infrastructure Projects and Major Developments Considered	7
2.1 Introduction	7
2.2 Overview of the Other Projects Identified	7
2.3 Summary Timeline of the Other Projects Considered	10
3. Potential Inter-project Effects Assessment	12
3.1 Joint Interrelationship between other Projects	12
3.2 Potential Inter-project Effects with other Nationally Significant Infrastructure Projects and Major Development Schemes	13
3.3 Collective Assessment of Inter-Project Effects	38

1. Introduction

1.1 Purpose of this Report

- 1.1.1 This report has been prepared in response to a requirement arising from the One Earth Solar Farm DCO Issue Specific Hearing 1 (ISH 1), where Newark and Sherwood District Council and Lincolnshire County Council requested further detail on the cumulative effects of the One Earth Solar Farm ('Proposed Development') alongside other Nationally Significant Infrastructure Projects (NSIPs).
- 1.1.2 This report sets out the inter-project effects between the Proposed Development and several other solar NSIPs at various stages of development within the administrative boundaries of Newark and Sherwood District Council, West Lindsey District Council, and Bassetlaw District Council. The Applicant has also included the National Grid North Humber to High Marnham NSIP [EN020034] and the proposed National Grid High Marnham Substation (a Town and Country Planning Act 1990 application likely to be submitted in 2025) due to the proximity of these schemes and potential interrelationships with the Proposed Development.
- 1.1.3 As part of the Environmental Impact Assessment (EIA), cumulative effects and interrelationships with other projects have been assessed and are presented in the Inter-Project Effects section, set out in Chapter 18: Cumulative Effects [REP2-029] of the Environmental Statement (ES). The Inter-Project Effects Assessment was undertaken in accordance with the Planning Inspectorate's (PINS) Advice on Cumulative Effects Assessment¹.
- 1.1.4 A long list of other existing and/or consented developments was compiled and is provided in Technical Appendix [REP2-039]. This long list has been agreed with the Host Authorities, and therefore no changes have been made at the time of writing. NSIPs were considered as part of this exercise but were excluded from the shortlist where they fell outside the Zone of Influence (Zol) for the relevant environmental aspects. During ISH 1, Newark and Sherwood District Council and Lincolnshire County Council requested further clarification on the justification for excluding certain solar NSIPs, along with the reasoning behind the conclusion that there are no likely significant effects. Accordingly, this report focuses on the potential interrelationships between the Proposed Development and other NSIPs or Major Development schemes.

¹ <https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-advice-on-cumulative-effects-assessment>

- 1.1.5 It was also acknowledged that there is potential slippage in the construction programmes for the Cottam Solar Project [EN010133], Gate Burton Energy Park [EN010131], West Burton [EN010132], and Tilbridge Solar Farm [EN010142]. For the purposes of this report, it is therefore assumed that these schemes could be constructed concurrently with the Proposed Development, resulting in a potential overlap of construction activities and subsequent operational periods.

1.2 Structure of this Report

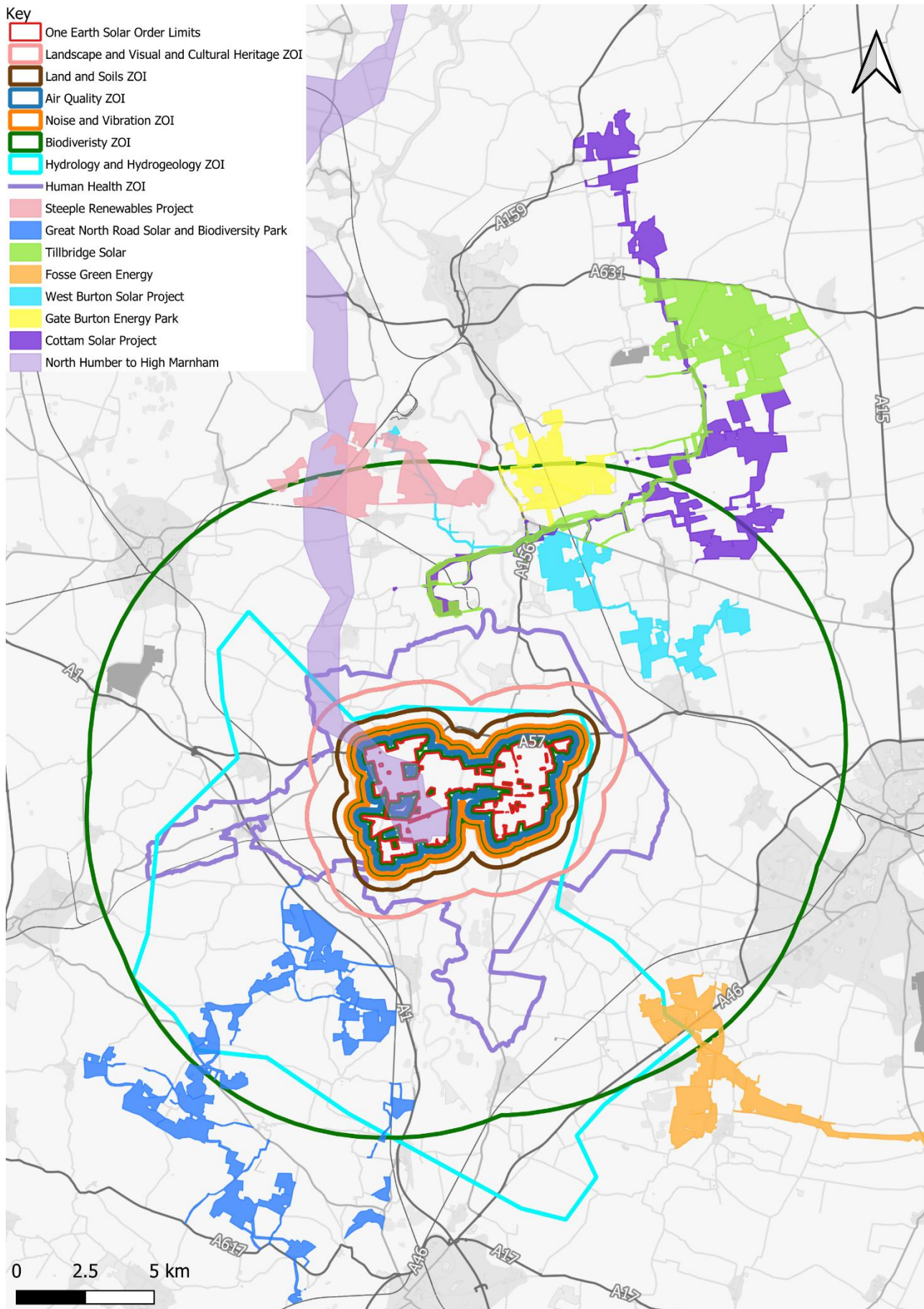
- 1.2.1 This report follows the scope as detailed to the Host Authorities via email (dated 11th September 2025), and is structured as follows:
- > Section 2: An overview of the other NSIPs and other Major Developments identified in Table 1: List of projects considered in this report; and
 - > Section 3: Provides an assessment of the potential interrelationships, this includes a collective assessment of inter-project effects. Details on the Applicant's approach to coordinate the construction, operation and decommissioning phases between projects is also set out.

1.3 Other Projects Considered in the Report

- 1.3.1 Figure 1 illustrates the location of the Order Limits of the Proposed Development and the associated NSIPs considered within this report. The assessment includes schemes situated to the west of Lincoln, within a 15km radius, as these are deemed most likely to result in cumulative impacts. This approach was confirmed with the host authorities via email on the 11th September, and the report has been prepared in accordance with this methodology. Table 1 provides further details of each of these projects as of September 2025.

Figure 1: The Order Limits and Redline Boundary of the Other Projects Considered in the Report

- Key
- One Earth Solar Order Limits
 - Landscape and Visual and Cultural Heritage ZOI
 - Land and Soils ZOI
 - Air Quality ZOI
 - Noise and Vibration ZOI
 - Biodiversity ZOI
 - Hydrology and Hydrogeology ZOI
 - Human Health ZOI
 - Steeple Renewables Project
 - Great North Road Solar and Biodiversity Park
 - Tillbridge Solar
 - Fosse Green Energy
 - West Burton Solar Project
 - Gate Burton Energy Park
 - Cottam Solar Project
 - North Humber to High Marnham



GENERAL NOTES:

- This drawing is to be read in conjunction with all engineer's, architect's or other relevant drawings and specifications.
- All dimensions and levels are subject to detailed design.
- All works to be carried out in compliance with the requirements of the relevant statutory authorities and regulations.

Drawing Notes:

Revision History

Rev	Date	By	Detail
01	13.08.2025	LOG	First Submission
02	19.08.2025	LOG	Second Submission

Copyright of Logika Group. Figured dimensions shall be taken in preference to scaling. The contractor shall check all dimensions on site before commencing work.

Project

One Earth Solar Farm

Drawing title

Order Limits Zones of Influence (Zoi) including Solar NSIP Projects

Drawing details

Applicant Response to ExA's First Written Questions (Q19.0.3)

Date	Drawn	Checked
19.08.2025	CP	GP

Client



Consultant



Drawing number

14529A-EX1

Revision

02

Table 1: List of the Other Projects Considered in this Report

Project Name	Application Reference	Local Planning Authority	Stage of Application	Preliminary Environmental Information Report Available	Environmental Statement Available	Date Application Submitted/ Due	Distance to the Nearest Edge of the Proposed Development
North Humber to High Marnham	EN020034	East Riding of Yorkshire Council, North Lincolnshire Council,	Pre-application. Scoping Response October 2023	No	No	April – June 2026	Located within Order Limits
High Marnham Substation	EN020034	Nottinghamshire County Council, and Bassetlaw District Council	Pre-application. Scoping Response October 2023	No	No	2025	Located within Order Limits

Cottam Solar Project	EN010133	West Lindsey District Council, and Bassetlaw District Council, Lincolnshire County Council and Nottinghamshire County Council	Consent Granted September 2024	Yes - June 2022	Yes – January 2023	January 2023	11.6km
Gate Burton Energy Park	EN010131	West Lindsey District Council, Bassetlaw District Council, Lincolnshire County Council and Nottinghamshire County Council.	Consent Granted July 2024	Yes - June 2022	Yes - February 2023	February 2023	9.44km
Great North Road Solar and Biodiversity Park	EN010162	Newark and Sherwood District Council and Nottinghamshire County Council	Pre-application.	Yes – January 2025	Yes – July 2025	July 2025	4.84km

West Burton Solar Project	EN010132	West Lindsey District Council, Bassetlaw District Council, Lincolnshire County Council and Nottinghamshire County Council.	Granted Consent January 2025	Yes – June 2022	Yes – April 2023	April 2023	4.68km
Fosse Green Energy	EN010154	North Kesteven District Council and Lincolnshire County Council.	Pre-examination. August 2025	Yes – October 2024	Yes – August 2025	July 2025	9.63km
Tillbridge Solar	EN010142	West Lindsey District Council, Bassetlaw District Council, Lincolnshire County Council and Nottinghamshire County Council.	Consent Granted October 2025	Yes – April 2023	Yes – April 2024	April 2024	16.3km
Steeple Renewables Project	EN010163	Bassetlaw District Council and Nottinghamshire County Council	Pre-examination July 2025	Yes – January 2025	Yes – May 2025	May 2025	10.5km

2. Overview of the Other Nationally Significant Infrastructure Projects and Major Developments Considered

2.1 Introduction

- 2.1.1 This section provides an overview of the other NSIPs and Major Developments considered in this report, including details on timings, construction phasing, grid connection date and the start of operation, where it is currently known. Details presented within this section have been derived from publicly available information published by the projects themselves.
- 2.1.2 It is accompanied by Figure 1, which shows the locations of each project. The following sections provide a brief description of the main elements of those projects and an overview of their consenting journey.
- 2.1.3 The description of the Proposed Development can be found within **ES Volume 1, Chapter 5: Description of the Proposed Development [EN010159/APP/6.5.1]**.
- 2.1.4 This report provides an update on the status of all identified projects and the steps taken to collaborate with their developers where required.

2.2 Overview of the Other Projects Identified

- 2.2.1 Of the nine projects considered in this report, seven are solar energy parks that would deliver electricity to the national electricity transmission network and two are high voltage electricity transmission schemes.

North Humber to High Marnham [EN020034]

- 2.2.2 North Humber to High Marnham project is being promoted by National Grid Electricity Transmission (NGET), which is part of National Grid. The North Humber to High Marnham project is a proposed reinforcement involving a new 400kV kilovolt (kV) electricity transmission overhead power line, extending approximately 90 kilometres (km) between North Humber to High Marnham. This would connect a proposed new substation close to the existing Creyke Beck Substation and a proposed new substation close to the existing High Marnham Substation. Located within 5km of the North Humber to High Marnham project are the city of Kingston-upon-Hull, towns of Beverley, Crowle, Scunthorpe, Epworth, Gainsborough and Retford, as well as multiple villages and individual properties. Part of the North Humber to High Marnham project is located within the Order Limits of the Proposed Development. The DCO application is expected to be submitted between April and June 2026. The North

Humber to High Marnham project does not include a new substation at High Marnham, which is discussed below.

High Marnham Substation [EN020034]

- 2.2.3 As detailed in the EIA Scoping Report for the above North Humber to High Marnham project, the proposal involves submitting a Town and Country Planning application to Bassetlaw District Council for a separate substation at High Marnham.
- 2.2.4 Information in the public domain² states construction of the High Marnham substation is expected to begin in summer 2026, with a 2.5 to 3-year construction programme, with the substation fully operational by winter 2029. The substation will be an Air Insulated Switchgear (AIS) installation, located to the west of the existing site at High Marnham. The compound will measure approximately 490 metres by 220 metres and will include around 20 bays, network stability equipment, standard substation plant, and control infrastructure. Overhead line gantries, approximately 12 metres high, will connect the incoming overhead cable from the EN020034 North Humber to High Marnham project (as above), forming the tallest structures on site. The compound is expected to be enclosed by an electrified palisade fence for security. Access during both the construction and operational phases is likely to be from Main Street, to the west of the site. Temporary diversions of existing overhead lines in proximity to the substation will be required during construction and are expected to remain in place for up to three years. As part of the works, two new pylons will be constructed to the north and seven to the south, while 26 existing pylons will be removed.

Cottam Solar Project [EN010133]

- 2.2.5 Cottam Solar Project is being promoted by Cottam Solar Project Limited, which is part of Island Green Power UK Limited. The Cottam scheme is a proposed solar farm across four areas of land connected by underground cable with a capacity of approximately 600MW together with a battery energy storage system. Two of the areas of the Cottam scheme containing solar panels are located between the villages of Willingham by Stow, Thorpe le Fallows and Fillingham. The other two areas are located further north around Blyton, Pilham and Corringham. The electricity generated will be transferred to the grid via a substation at Cottam Power Station. The DCO application was submitted to PINS on 12 January 2023 and accepted for Examination on 10 February 2023. Examination commenced on 5 September 2023 and closed on 5 March 2024. The Cottam scheme was consented on 5 September 2024.

Gate Burton Energy Park [EN010131]

²National Grid (2024). The Great Grid update: Brinsworth to High Marnham, Project summary document. High Marnham Substation. April 2024

- 2.2.6 The Gate Burton Energy Park project is a proposal for a solar PV park with a capacity of approximately 531MW together with a battery energy storage system, promoted by Gate Burton Energy Park Limited, which is part of Low Carbon Limited. It is located to the east of the River Trent between the villages of Knaith, Gate Burton and Willingham by Stow. The electricity generated will be transferred by an underground 400kV cable to the grid connection substation at Cottam Power Station to the south-west. The DCO application was submitted by the Gate Burton undertaker to PINS on 27 January 2023 and accepted for Examination on 22 February 2023. Examination commenced on 4 July 2023 and closed on 4 January 2024. The Gate Burton scheme was consented on 12 July 2024.

Great North Road Solar and Biodiversity Park [EN010162]

- 2.2.7 Great North Road Solar and Biodiversity Park is being promoted by Elements Green Trent Limited. It is a proposal for a solar PV electricity generating facility with a capacity of 800MW and a Battery Energy Storage System (BESS), to provide the option to store electricity prior to exporting it to the grid. The Great North Road scheme is located to the west of the A1, north of the A617, east of Eakring, and south of Egmont, occupying two main areas to the north and north-west of Staythorpe, consisting of a loop of land parcels proposed to be occupied by solar PV panels, connected by cable route areas. The DCO application was submitted to PINS on 27 June 2025 and on the 22 July 2025 has been accepted for examination.

West Burton Solar Project [EN010132]

- 2.2.8 West Burton Solar Project is being promoted by West Burton Solar Project Limited, which is also part of Island Green Power. It is a proposal for a solar PV park across three areas of land connected by underground cable, with a capacity of approximately 480MW together with a battery energy storage system. The areas of the West Burton scheme siting solar panels are located south of the A1500 around the villages of Marton, Ingleby and Bransby. The electricity generated will be transferred to the grid via a substation at West Burton Power Station. The DCO application was submitted to PINS on 21 March 2023 and accepted for Examination on 18 April 2023. The Examination commenced on 8 November 2023 and closed on 8 May 2024. The West Burton scheme was consented on 24 January 2025.

Fosse Green Energy [EN010154]

- 2.2.9 Fosse Green Energy is being promoted by Fosse Green Energy Limited, and is a subsidiary of Windel Energy Limited and Canadian Solar Inc. It is a proposal for the installation of solar PV generating panels and on-site BESS, cabling and on-site energy storage facilities together with grid connection and associated infrastructure, with an anticipated capacity in excess of 50MW. The Fosse Green scheme is approximately 9km south-west of Lincoln, the solar and energy storage park being located adjacent to Witham St Hughs and the grid connection corridor options located around Navenby and Coleby. The DCO application was

submitted to PINS on 18 July 2025 and accepted for examination on 15 August, and is currently at the pre-examination stage.

Tillbridge Solar [EN010142]

- 2.2.10 Tillbridge Solar Project is being promoted by Tillbridge Solar Limited and is a joint venture between Tribus Clean Energy Limited and Recurrent Energy. The Tillbridge scheme has secured a Bilateral Connection Agreement (BCA) with National Grid to allow 500MW of renewable energy to be transferred into and out of its substation. The proposed solar farm is located between Springthorpe and Glentworth. The electricity generated will be transferred to the grid via a substation at Cottam Power Station (National Grid Cottam Substation). The DCO application was submitted to PINS on 10 April 2024 and accepted for Examination on 8 May 2024. The Examination commenced on 15 October 2024 and the Secretary of State granted development consent on 14 October 2025.

Steeple Renewables Project [EN010163]

- 2.2.11 Steeple Renewables Project is being promoted by Steeple Solar Farm Limited, a wholly owned subsidiary of Renewable Energy Systems (RES) Limited. The Steeple scheme is a proposal for construction, operation, and decommissioning of a ground mounted solar PV electricity generation station with a capacity of over 50 MW and associated development comprising of energy storage and grid connection infrastructure on land at Sturton le Steeple. The proposed solar farm is located north of South Leverton, south of North Wheatley and east of Clarborough. The DCO application was submitted to PINS on 14 May 2025 and was accepted for examination on 11 June 2025. The project is currently in the pre-examination stage, during which interested parties can register as Interested Parties and submit Relevant Representations. The examination phase is anticipated to commence on 11 November 2025, with a decision expected in November 2026.

2.3 Summary Timeline of the Other Projects Considered

- 2.3.1 Figure 2 illustrates the timeline of each proposed project as detailed within the public domain and as described above.

Figure 2: Indicative Construction Timelines and Commencement of Operation of all NSIPs and Major Development Schemes As Detailed in the Public Domain

	2025				2026				2027				2028				2029				2030				2031				2032				2033			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
The Proposed Development																																				
North Humber to High Marnham																																				
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2.3.2 As discussed in Section 1 it was acknowledged that there is potential slippage in the construction programmes for the Cottam Solar Project [EN010133], Gate Burton Energy Park [EN010131], West Burton [EN010132], and Tilbridge Solar Farm [EN010142]. For the purposes of this report, it is therefore assumed that these schemes could be constructed concurrently with the Proposed Development, resulting in a potential overlap of construction activities. As such Figure 3, sets out the timelines used within this assessment. This approach is conservative as there remains a level of uncertainty when and if there could be an overlap in terms of the construction phases.

Figure 3: Indicative Construction Timelines and Commencement of Operation of all NSIPs and Major Development Schemes Considered for Potential Inter-project Effects (Worst-Case Assessment)

	2025				2026				2027				2028				2029				2030				2031				2032				2033			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
The Proposed Development																																				
North Humber to High Marnham																																				
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Steeple Renewables Project																																				

3. Potential Inter-project Effects Assessment

3.1 Joint Interrelationship between other Projects

- 3.1.1 As shown in Figure 1, the Proposed Development does not include any shared Order Limits or mitigation measures with other solar DCO projects. This is primarily due to the separation distance between the Proposed Development and nearby schemes. In addition, the Proposed Development cannot share a cable corridor with the other solar DCOs due to differences in connection points to the National Grid.
- 3.1.2 As there are no shared overlapping Order Limits, infrastructure, or common interfaces, to date there has been no realistic potential for interaction requiring joint working. Whilst no engagement has occurred to date the Applicant is committed to working with the other developers of the other solar NSIPs to reduce potential cumulative impacts where possible or practicable, these commitments are set out in the outline Construction Environmental Management Plan (oCEMP) [REP3-041], the outline Construction Traffic Management Plan (oCTMP) [REP3-049] and the outline Landscape Ecology Management Plan (oLEMP) [REP3-047] and discussed in the following paragraphs.
- 3.1.3 With regards to construction, where there are any temporal construction overlaps between the other solar DCO projects identified the Applicant will:
- > Engage proactively with other developers to share relevant information on construction programmes, site access arrangements, and key activities;
 - > Seek to coordinate works, where practicable, to avoid or minimise cumulative impacts such as traffic congestion, noise, dust, or disruption to local communities and land users;
 - > Participate in any local or planning authority-led coordination groups, liaison committees, or working groups as required;
 - > Seek to agree mitigation measures with other developers where necessary to manage overlapping environmental effects (such as transport routes);
 - > Keep relevant local authorities, statutory consultees, and stakeholders informed of any coordination activities and outcomes;
 - > Document and maintain records of all engagement and cooperation efforts with third-party developers.
- 3.1.4 This approach will be maintained throughout the construction phase, as detailed within the outline Construction and Environmental Management Plan (oCEMP) [REP3-041]. Post consent, the CEMP will be updated as necessary to reflect changes in either project or surrounding development activities.

- 3.1.5 In addition to the oCEMP, the outline Construction Traffic Management Plan (oCTMP) [REP3-049] confirms that to avoid the need for repetition and delay to existing road users, the Applicant will liaise with other significant developments in the area with a view to coordinating works and deliveries.
- 3.1.6 During the operation, the Applicant is committed to ensuring that the creation and management of new habitats, as well as the enhancement of existing habitats, are delivered effectively thorough coordination with other projects. This will be achieved via a Steering Group, which will include other willing solar developers in the area, the host authority ecologists and conservation organisations such as the Lincolnshire Wildlife Trust and Nottinghamshire Wildlife Trust. The Steering Group will seek opportunities for strategic biodiversity enhancements, sharing lessons learnt on habitat establishment and management, explore the potential for resource-sharing (such as the use of a local grazier) and adding to the overall knowledge base associated with the effect of solar farms on biodiversity. This commitment is made within the outline Landscape and Ecology Management Plan (oLEMP) [REP3-047].
- 3.1.7 The High Marnham Substation upgrade is within the Order Limits of the Proposed Development. The High Marnham Substation upgrade has been considered throughout the design process for the Proposed Development, as this will be the secured connection point for the Proposed Development, and the area of its potential location has been included within Work Area 4 of the Order Limits.
- 3.1.8 The North Humber to High Marnham [EN020034] projects does overlap the Order Limits of the Proposed Development, however there is no shared mitigation because the project does not yet have a final preferred alignment, making it difficult to coordinate where shared mitigation could be. The Applicant is aware that the project would need access to its overhead line assets that pass through the Order Limits in order to undertake the construction of the new transmission line at a currently undefined point in the next 5 years. The Applicant has been discussing and working with National Grid, including negotiating protective provisions, with a view to managing the interaction between the projects within the Order limits.

3.2 Potential Inter-project Effects with other Nationally Significant Infrastructure Projects and Major Development Schemes

- 3.2.1 Table 3.1 sets out the potential cumulative effects of the Proposed Development with the other NSIP Projects and Major Development Schemes.
- 3.2.2 For the other NSIP projects (seperate to North Humber to High Marnham and High Marnham Substation), rather than repeating text within Table 3.1, cumulative effects on the following technical aspects have not been considered further due to the following reasons:

- > Buried Heritage - Potential impacts are highly site-specific and relate to distinct archaeological receptors within each of the NSIP's Order Limits. There is therefore no reasonable pathway for cumulative interaction and as such no cumulative effects.
- > Air quality and noise - Impacts from construction dust (typically limited to within approximately 350 m without mitigation) and construction noise are localised in nature. With the implementation of standard mitigation measures, no likely significant cumulative effects are anticipated.
- > Health - Effects are inherently addressed through effective management of environmental factors (e.g. air quality and noise) and through appropriate project design. No likely significant cumulative effects are anticipated. The regional effect on changes to landscape character has been considered separately.
- > Carbon - Effects are evaluated at the project level through embedded design measures and lifecycle assessments, rather than through spatial cumulative analysis. All the other NSIPs show a beneficial effect, and therefore the cumulative effects are likely to result in beneficial effects.
- > Hydrology and hydrogeology - is managed through the implementation of a site-specific CEMP for each other NSIP, which sets out appropriate measures to control runoff, protect surface water and groundwater quality, and minimise disturbance to existing drainage features as far as practicable. Similarly during operation a site-specific Flood Risk Assessment (FRA) and accompanying Surface Water Drainage Strategy will be prepared and agreed with the Environment Agency (EA) and Lead Local Flood Authority (LLFA) for each of the other NSIPs. These measures ensure that flood risk is appropriately managed and that no likely significant effects occur.

3.2.3 In addition to Table 3.1, Section 3.2 provides an assessment of cumulative effects on best and most versatile (BMV) agricultural land, socio-economic effects associated within the impact of construction workers on tourist accommodation, and the regional effect on landscape character.

Table 3-1: Potential Inter-project Effects

Project Name: North Humber to High Marnham & High Marnham Substation [EN020034]				
Environmental Aspect	Within Environmental Aspect Zone of Influence	Details on Potential Cumulative Effect	Cumulative Effects between the other NSIP / Major Development and the Proposed Development as reported in the other NSIP / Major Development Project Planning Submission	Proposed Mitigation Measures included within the Proposed Development
Biodiversity	Yes	<p>Construction: During construction there is the potential for disturbance and displacement of a variety of fauna from both the working area associated with National Grid’s works and those associated with the delivery of the Proposed Development. The majority of activity for the Proposed Development and National Grid’s works are within large open arable fields. Disturbance and displacement of fauna for either project will be localised and unlikely to alter the size, fitness or status of local populations of any given ecological feature. This remains the case regardless of whether or not the activities taking place are in relative proximity (i.e. in adjacent fields). For much of the construction programme it is likely that there would be adequate separation for even low level effects to be avoided.</p> <p>Operation: Once both the Proposed Development and High Marnham substation are complete and operational, cumulative effects would be restricted to the potential benefit to biodiversity from the delivery of Biodiversity Net Gain (BNG). However, there is insufficient information available with regards National Grid’s plans to understand whether or not the benefit would be considered significant.</p> <p>Decommissioning: The North Humber to High Marnham & High Marnham Substation projects are considered permanent infrastructure and will not be decommissioned, therefore there will be no overlapping decommissioning phase and therefore no potential cumulative effects.</p>	This project is at the Scoping stage and has not yet provided any cumulative information regarding the One Earth development.	<p>Measures for protecting biodiversity during construction would be included within the CEMP.</p> <p>During operation, the Landscaping Strategy would secure the BNG to be delivered. It is assumed that the North Humber to High Marnham & High Marnham Substation projects would have landscaping proposals in place to enhance biodiversity.</p>
Hydrology	Yes	<p>Construction: There is potential for cumulative impacts to hydrological and hydrogeological characteristics and receptors due to the proximity of the two projects. However, no significant cumulative effects are anticipated, as measures will be implemented to control potential impacts to hydrological and hydrogeological features.</p> <p>Operation: The cumulation of development has the potential to result in increased flood risk locally due to the increased impermeable surfaces within the area. However, no significant cumulative effects are anticipated as the impact on flood risk will be assessed and an appropriate drainage strategy implemented to demonstrate no increase to flood risk as a result of the projects (in line with flood risk policy).</p>	As above.	<p>Construction: a site-specific CEMP will ensure that potential impacts to hydrology and hydrogeology are managed and minimised as far as practicable.</p> <p>Operation: A site-specific Flood Risk Assessment (FRA) along with supporting Surface Water Drainage Strategy will be required and agreed with the Environment Agency (EA) and Lead Local Flood Authority (LLFA).</p>

		Decommissioning: As above.		
Land and Soils	Yes	<p>The effect of the Proposed Development on availability of BMV land is considered temporary as the land will be restored and returned to agricultural use following decommissioning. Although the land use associated with the High Marnham substation is assumed to be permanent, the area required for this infrastructure is relatively small. Taken into account the temporary nature of the BMV land loss for the Proposed Development, the mitigation proposed (including soil protection and management during construction) and the limited permanent loss of BMV land for the High Marnham substation, the cumulative inter-project effect is assessed as low adverse and not significant during both construction and operation phases.</p> <p>See section 3.2 for further commentary on regional cumulative effects on land and agricultural use.</p>	As above.	See section 3.2.
Buried Heritage	Yes	<p>Construction: There is the potential for direct and/ or indirect impacts arising from construction activities on site. However, any effects would be site-specific and not extend beyond the site boundary, therefore there is no potential for significant cumulative effects upon buried heritage assets. Furthermore, the High Marnham Substation site is already heavily disturbed as part of the present power infrastructure, it is concluded that no significant cumulative effect interaction would be anticipated.</p> <p>Operation: No cumulative effects identified, as any impacts would be realised during the construction phase and within the boundary or immediately surrounding it.</p> <p>Decommissioning: As above. Furthermore, any effects on buried assets would likely be realised during the construction phase.</p>	As above.	<p>Construction: Measures for protecting buried assets will be included within the Written Statement of Investigation (WSI) and CEMP. The WSI will be agreed with the county archaeologist and adhered to in order to protect any regionally significant archaeological remains. The Detailed Design will ensure buried assets are protected where they are known.</p> <p>Operation: N/A</p> <p>Decommissioning: Similar measures to the construction phase will be in place during decommissioning to protect buried heritage assets.</p>
Cultural Heritage	Yes	<p>Construction: The construction works and traffic routes are not currently known for the High Marnham substation proposals, and it is not yet possible to provide a detailed review of the potential impact, but the existing and historic context of assets in High Marnham, as well as distance from these heritage assets, would be relevant here. There may be cumulative adverse impacts, depending on the nature of demolition and construction works, however this likely would be a small change from what has been assessed thus far and would be temporary and reversible only.</p>	As above.	<p>Construction: Measures for protecting cultural heritage assets will be included within the CEMP and CTMP.</p> <p>Operation: Landscaping measures and the detailed design will reduce impacts on cultural heritage assets at each Site.</p> <p>Decommissioning: Similar measures to the construction phase will be in place during decommissioning.</p>

		<p>Operation: The High Marnham substation proposals would stand within the Proposed Development Order Limits in an area proposed for below ground cabling. This area of the Order Limits is stated within the baseline assessment to not inform the value of any heritage assets, including that of Marnham Hall (Grade II) and Marnham Hall UPG. As such, whilst this would be a cumulative consolidation of power infrastructure, there would be no synergistic cumulative impacts on these heritage assets due to the lack of effects to identified heritage assets arising from the Proposed Development. There are unlikely to be cumulative impacts due to the existing context of the area already being heavily informed by the power infrastructure, both historically and currently.</p> <p>Decommissioning: As above.</p>		
Landscape and Visual	Yes	<p>Construction & Operation: With regard to users of public rights of way to the south of East Drayton, the addition of the North Humber to High Marnham project with One Earth would noticeably increase the extent over which changes to the visual amenity would be perceived at both construction and operation, extending across a larger portion of the view and within a closer distance. At construction, this would likely result in a High magnitude of change which assessed against the Medium sensitivity of the users of local PRoW would result in Major adverse effect, which is significant. At operation, this would likely result in a Medium magnitude of change which assessed against the Medium sensitivity of the users of local PRoW would result in a Moderate adverse effect, which is significant.</p> <p>Otherwise, it is considered that at construction and operation (year 15) there would be no notable difference between the other residual landscape and visual effects of One Earth, and the cumulative landscape and visual effects of One Earth in North Humber to High Marnham.</p>	<p>The EIA Scoping Report associated with North Humber to High Marnham did not provide an appraisal of receptors but concluded that there was potential for significant effects on regional LCTs and residents of local communities and individual properties, as well as people engaged in recreational activities within the respective study area.</p>	<p>Landscaping proposals will be secured by a Landscaping Strategy with mitigation measures included within the LEMP.</p>
Transport and Access	Yes	<p>Construction: Traffic flows are not available for the High Marnham Substation proposals and as such it is not yet possible to provide a detailed review of the potential impact. However, due to the proximity of the two projects, it is likely that the key transport routes for construction will overlap.</p> <p>However, construction flows are considered to be circa 100-150 movements per days. This is unlikely to result in significant cumulative impacts on the One Earth study area, assuming construction vehicle access is via the main A and B class road network.</p> <p>Operation: Likely traffic levels are predicted to be very low and generally relate to occasional maintenance trips. No significant traffic impact will be associated with this phase.</p>	<p>As above.</p>	<p>Construction: Measures to manage potential traffic impacts will be included within a Construction Traffic Management Plan.</p> <p>Management plans for the operation and decommissioning phases will also be implemented.</p>

		Decommissioning: As above.		
Air Quality	Yes	<p>Construction: Whilst the construction programmes do overlap and the two projects are in close proximity, Institute of Air Quality Management construction guidance states that with appropriate measures embedded in the CEMP (as identified by the construction dust risk assessment) there will be no significant effects. The Proposed Development has already implemented the highest level of measures, therefore any potential cumulative effects will also be not significant.</p> <p>Operation: No cumulative effects identified. An assessment of air quality effects was scoped out for the Proposed Development as there are not considered to be significant air quality impacts during this phase.</p> <p>Decommissioning: As above.</p>	As above.	<p>Construction: Measures to reduce air quality effects will be included within the CEMP and CTMP. A Dust Assessment will be undertaken with mitigation measures included in a Dust Management Plan.</p> <p>Operation: N/A</p> <p>Decommissioning: Measures to reduce air quality effects will be included within the DEMP.</p>
Carbon and Climate Change	No	<p>Overall, the Proposed Development (both in isolation and in conjunction with the proposed National Grid High Marnham Substation) will lead to avoided GHG emissions (i.e. a net emissions reduction) by replacing electricity currently generated by more carbon intensive methods (such as natural gas Combined Cycle Gas Turbine (CCGT)) and enable the removal of fossil fuel generation from the UK electricity grid.</p> <p>These effects are considered significant beneficial.</p>	As above.	N/A
Noise and Vibration	Yes	<p>Construction: Plant and equipment requirements for the construction of the High Marnham substation are not currently known, however it is considered likely that these will involve typical construction activities such as earthworks, concreting and craneage / materials movement. Whilst it is possible that these activities could overlap with construction activities of the Proposed Development, noise and vibration impacts associated with the Proposed Development are considered at worst minor, due to the short durations of impact involved. As such, due to the short durations of noise and vibration impacts associated with the Proposed Development, it is very unlikely that cumulative impacts would occur during construction, and cumulative construction noise and vibration effects are considered not significant.</p>	As above.	<p>Construction & Decommissioning: Measures to reduce noise and vibration effects will be included within the CEMP and CTMP, and subsequent management plans for the decommissioning phase.</p> <p>Operation: Each project will utilise a design that incorporates sufficient setbacks from sensitive receptors, will site equipment and infrastructure away from sensitive receptors and will incorporate noise mitigation measures where necessary.</p>

		<p>Operation: The main sources of operational noise associated with the Proposed Development are situated around the proposed BESS and substation compounds. As such, the receptors which are anticipated to experience greater than negligible noise impacts due to the operation of the Proposed Development are located around Ragnall, Fledborough and North Clifton. Whilst there is currently insufficient information to consider the potential noise impacts of the proposed High Marnham substation, the majority of receptors of relevance for the Proposed Development are over 1km from the proposed High Marnham site. As such, cumulative noise impacts are extremely unlikely at these receptors. The exceptions to this are receptors to the south of Fledborough, including Station House, Station Cottages and Fledborough House. These properties are all predicted to experience Negligible impacts during the day and Minor impacts during the night due to operational noise from the Proposed Development, and are all approximately 500m or more from the proposed High Marnham substation. As such, cumulative operational noise impacts are unlikely and cumulative operational noise significant effects are considered not significant.</p> <p>Decommissioning: As above.</p>		
Human Health	Yes	<p>Construction: During construction, the diversions of existing overhead lines within proximity to the substation may alter the visual landscape, and therefore exacerbate community anxiety and stress.</p> <p>Construction & Operation: There are no Public Rights of Way within the site or within its immediate surroundings, so no impacts on physical activity are expected.</p> <p>Any impacts relating to air quality, noise and traffic will be managed as to be not significant through the implementation of management plans. As such, no significant cumulative effects are anticipated.</p> <p>Operation: The location of the Substation should be at a sufficient distance (ie more than 300m away) from any residential dwellings, so that the strength of EMFs will be below the ICNIRP guidelines. Once constructed, there may also be some permanent alterations to the visual landscape of the area, which could cause anxiety within the community. However, there would be an increase in the contribution towards energy infrastructure and climate change mitigation, having positive wider societal effects for public health.</p> <p>Decommissioning: As above.</p>	As above.	All phases: measures would be included within management plans such as relating to transport, air quality and noise to mitigate human health effects. Visual effects would be reduced through the implementation of a landscaping strategy and measures included within a LEMP.
Socio-Economics	Yes	Construction & Operation:	As above.	See section 3.2.

Employment: The high Marnham substation proposals have the potential to generate additional employment during construction and operation, of a range of technical specialisms. It will be built on the site of a former power station, so is not expected to result in the loss of any agricultural land/jobs, thus there may be a significant net increase in jobs, although no specific information is available to quantify the impacts. There is therefore the potential for significant beneficial cumulative effects on employment in the Local Area, given the positive net change also anticipated as a result of the Proposed Development. Based on the anticipated effects on employment, the scheme may also increase demand for accommodation locally during the construction phase.

Amenity, PRow and Tourism: The High Marnham substation proposals are not expected to impact any PRow during either construction or operation. Construction works may overlap with those of the Proposed Development, so additional cumulative effects on amenity are possible. Other potential cumulative amenity effects during operation, are possible, due to this scheme’s proximity to sensitive receptors in High Marnham to the south, and these are addressed further in the relevant sections: Landscape and Visual, Air Quality and Noise. This scheme has the potential to negatively impact amenity (as discussed above) and therefore tourism, specifically on visitors to the caravan park in High Marnham. This may be offset somewhat by the increased demand for accommodation during the construction phases of both the high Marnham substation proposals and the Proposed Development. The Proposed Development is not expected to have a large impact on this site during operation, given the distance and therefore lack of amenity effects, so any cumulative effects are not expected to be significant.

Decommissioning: As above.

An assessment of cumulative effects on construction worker accommodation is provided below in section 3.2.

Summary: Whilst there are anticipated to be some cumulative effects, these effects are considered to be not significant.

Project Name: Cottam Solar Project [EN010133]				
Environmental Aspect	Within Environmental Aspect Zone of Influence	Details on Potential Cumulative Effect	Cumulative Effects between the other NSIP / Major Development and the Proposed Development as reported in the other NSIP / Major Development Project Planning Submission	Proposed Mitigation Measures included within the Proposed Development

Biodiversity	No	<p>Construction: During construction there is the potential for disturbance and displacement of a variety of fauna within the region during the overlap of construction periods. Disturbance and displacement of fauna for either project will however be localised and unlikely to alter the size, fitness or status of local populations of any given ecological feature. In addition, neither project reported any potential significant adverse effects during their construction phases, therefore significant cumulative effects are considered unlikely.</p> <p>Operation: Both projects are anticipated to become operational in Q4 2029, as per Figure 2. Once both projects are complete and operational, cumulative effects would be restricted to the potential benefit to biodiversity from the delivery of BNG and other landscaping measures. Both projects report beneficial (both significant and not significant) effects during their operational phases.</p> <p>In particular, the Proposed Development reported significant beneficial to coastal and floodplain grazing marsh, hedgerow, ponds, wet ditches, neutral grassland, other breeding birds, water vole, brown hare and hedgehog at a County level, and no significant adverse effects at a County level.</p> <p>Decommissioning: Given that the two projects will have an operational life of approximately 60 years, there is the possibility that the decommissioning phases overlap as they are both due to be operational in Q4 2029. Any potential effects would be similar to those reported during construction, with effects being localised to each Site, and likely of less severity as below ground cables are anticipated to remain below ground which will limit habitat loss. No significant adverse effects are reported for each project.</p>	<p>The Proposed Development was considered within the Cottam cumulative assessment. No cumulative effects were reported by the Cottam cumulative assessment due to the Proposed Development falling outside of the Zol in respect of biodiversity.</p> <p>On a district level it was concluded that the addition of the Proposed Development would not exacerbate the cumulative significant adverse effect on ground nesting birds.</p>	<p>Construction & Decommissioning: Measures for protecting biodiversity during construction would be included within the CEMP, and for decommissioning in the subsequent DEMP.</p> <p>Operation: the Landscaping Strategy would secure the BNG to be delivered. Measures to protect biodiversity will be included within the LEMP.</p> <p>Decommissioning: Measures for protecting biodiversity during decommissioning would be included within the DEMP / Decommissioning Statement, including pre-decommissioning surveying of habitats to inform the mitigation requirements at the time of decommissioning.</p>
Cultural Heritage	No	<p>Whilst the project timelines will overlap, due to the distance of separation between the projects and lack of intervisibility there will be no significant cumulative effects to cultural heritage assets during any phase. Any impacts would be site specific and not result in significant cumulative effects.</p>	<p>No cumulative effects were reported within the Cottam cumulative assessment due to One Earth falling outside of the Zol in respect of cultural heritage.</p>	<p>Construction: Measures for protecting cultural heritage assets will be included within the CEMP.</p> <p>Operation: Landscaping measures and the detailed design will reduce impacts on cultural heritage assets at each Site.</p> <p>Decommissioning: Similar measures to the construction phase will be in place during decommissioning.</p>

Landscape and Visual	No	<p>The Proposed Development and the cumulative scheme will principally be located within the same National Character Area and Regional Landscape Character Areas but will otherwise be located in different District Landscape Character Areas as identified in the relevant published Landscape Character Assessments. However, the national and regional landscape character areas cover very large geographic extents in relation to the Proposed Development and the cumulative scheme collectively, such that undue changes to their baseline is considered very unlikely i.e. the key characteristics of the relevant character areas will remain unchanged as a result of the Proposed Development and cumulative scheme coming forward.</p> <p>The cumulative scheme is located approx. 11.6 km from the Proposed Development with large swathes of the landscape outside of the respective Order Limits and between the schemes remaining in its current baseline state. As such there will be no intervisibility between the Proposed Development and the cumulative scheme due to intervening topography, built structures and vegetation. Therefore, after seeing the Proposed Development, people will have to travel through a number of different District Landscape Character Areas, each contributing to a varied visual experience, before encountering the cumulative scheme.</p> <p>The submitted LVIA for the Proposed Development concludes that the standalone residual impacts would be localised. The large gap between the Proposed Development and cumulative scheme would serve to retain the key characteristics of the surrounding landscape as well as provide relief between views of solar PV infrastructure and therefore result in negligible difference to the wider landscape character and the way it is experienced by people passing through it.</p> <p>Therefore, cumulative landscape and visual effects between the Proposed Development and the cumulative scheme at construction, operation and decommissioning will not be significant.</p>	<p>No cumulative effects were reported within the Cottam cumulative assessment due to One Earth falling outside of the ZoI in respect of landscape and visual.</p>	<p>Landscaping proposals will be secured by a Landscaping Strategy with mitigation measures included within the LEMP.</p>
Transport and Access	No	<p>Construction & Decommissioning: The Proposed Development has considered the Cottam Solar Project within the transport assessment [EN010159/APP/6.21.2] and consequently has not reported any significant transport effects. Where there is use of the same roads such as the A57, these are considered to have sufficient capacity and at a distance away from each other such that transport on the A57 will not have a cumulative effect.</p> <p>Operation: Due to the low levels of transport numbers and movements during the operational phase, an operational assessment of transport was scoped out. Therefore, there will be no cumulative effects due to the low numbers of vehicles and lack of overlapping transport routes.</p>	<p>No significant cumulative effects were reported when considering Cottam Solar Project with One Earth, as reported in the ES Addendum: Cumulative Effects [EN010133-EX5/C8.4.23.1].</p> <p>The Cottam Solar Project Transport Assessment [EN010133-EX5s/C6.3.14.1_C] concluded that there will be no significant effects on the local highway network during construction and that trips will be well spread out across the network.</p>	<p>Construction: Measures to manage potential traffic impacts and working with other developers is included within a CTMP.</p> <p>Management plans for the operation and decommissioning phases will also be implemented.</p>

Summary: Whilst there are anticipated to be some cumulative effects, the effects are considered not significant, with the exception of significant beneficial effects reported for BNG and some ecological receptors at a County level. It is noted that Cottam reported significant adverse effects in relation to effects on ground nesting birds, however the addition of the Proposed Development does not exacerbate this effect.

Project Name: Gate Burton Energy Park [EN010131]

Environmental Aspect	Within Environmental Aspect Zone of Influence	Details on Potential Cumulative Effect	Cumulative Effects between the other NSIP / Major Development and the Proposed Development as reported in the other NSIP / Major Development Project Planning Submission	Proposed Mitigation Measures included within the Proposed Development
Biodiversity	Yes	<p>Construction: Any cumulative effect interaction would relate to land take or disturbance. Given the distance between the projects, it is unlikely land take would indirectly affect those species utilising the nearest European Sites, i.e. there would be no pathway for an impact. Furthermore, only the final year of the construction phase for Gate Burton will overlap with the first year of the Proposed Development construction. Should the proposals be within the ZoI for the International Site, the appropriate HRA screening and assessment process will ensure that impacts are mitigated. No significant cumulative effects are therefore considered likely.</p> <p>Operation: Both projects will have overlapping operational periods, as per Figure 2. Once both projects are complete and operational, cumulative effects would be restricted to the potential benefit to biodiversity from the delivery of BNG and other landscaping measures. Both projects report beneficial (both significant and not significant) effects during their operational phases as a result of habitat creation and enhancement.</p> <p>In particular, the Proposed Development reported significant beneficial to coastal and floodplain grazing marsh, hedgerow, ponds, wet ditches, neutral grassland, other breeding birds, water vole, brown hare and hedgehog at a County level, and no significant adverse effects at a County level.</p> <p>Decommissioning: The Gate Burton Energy Park operational lifetime is expected to be 40 years (20 years earlier than the Proposed Development), and as such there is unlikely to be overlaps with the Proposed Development.</p>	<p>The Proposed Development lies beyond the 5km study area that Gate Burton applied to their cumulative assessment. No cumulative effects were report by Gate Burton with the Proposed Development in respect of biodiversity.</p>	<p>Construction: Measures for protecting biodiversity during construction would be included within the CEMP.</p> <p>Operation: the Landscaping Strategy would secure the BNG to be delivered. Measures to protect biodiversity will be included within the LEMP.</p> <p>Decommissioning: Measures would be included within a DEMP.</p> <p>HRA screening and assessment would ensure potential impacts to European Sites are mitigated to not be significant.</p>

Cultural Heritage	No	<p>Construction & Operation: Whilst the project timelines will overlap, due to the distance of separation between the projects and lack of intervisibility there will be no significant cumulative effects to cultural heritage assets during any phase. Any impacts would be site specific and not result in significant cumulative effects.</p> <p>Decommissioning: The Gate Burton Energy Park operational lifetime is expected to be 40 years (20 years earlier than the Proposed Development), and as such there is unlikely to be overlaps with the Proposed Development.</p>	<p>The Proposed Development lies beyond the 5km study area that Gate Burton applied to their cumulative assessment. However, when asked to consider The Proposed Development along with other NSIPs, Gate Burton reported that there would be no additional cumulative effects in respect of cultural heritage.</p>	<p>Construction: Measures for protecting cultural heritage assets will be included within the CEMP.</p> <p>Operation: Landscaping measures and the detailed design will reduce impacts on cultural heritage assets at each Site.</p> <p>Decommissioning: Similar measures to the construction phase will be in place during decommissioning.</p>
Landscape and Visual	No	<p>The Proposed Development and the cumulative scheme will principally be located within the same National Character Area and Regional Landscape Character Areas but will otherwise be located in different District Landscape Character Areas as identified in the relevant published Landscape Character Assessments. However, the national and regional landscape character areas cover very large geographic extents in relation to the Proposed Development and the cumulative scheme collectively, such that undue changes to their baseline is considered very unlikely i.e. the key characteristics of the relevant character areas will remain unchanged as a result of the Proposed Development and cumulative scheme coming forward.</p> <p>The cumulative scheme is located approx. 9.44 km from the Proposed Development with large swathes of the landscape outside of the respective Order Limits and between the schemes remaining in its current baseline state. As such there will be no intervisibility between the Proposed Development and the cumulative scheme due to intervening topography, built structures and vegetation. Therefore, after seeing the Proposed Development, people will have to travel through a number of different District Landscape Character Areas, each contributing to a varied visual experience, before encountering the cumulative scheme.</p> <p>The submitted LVIA for the Proposed Development concludes that the standalone impacts would be localised. The large gap between the Proposed Development and cumulative scheme would serve to retain the key characteristics of the surrounding landscape as well as provide relief between views of solar PV infrastructure and therefore result in negligible difference to the wider landscape character and the way it is experienced by people passing through it.</p> <p>Therefore, cumulative landscape and visual effects between the Proposed Development and the cumulative scheme at construction, operation and decommissioning will not be significant.</p>	<p>The Proposed Development lies beyond the 5km study area that Gate Burton applied to their cumulative assessment. However, when asked to consider The Proposed Development along with other NSIPs, Gate Burton reported that there would be no additional cumulative effects in respect of landscape and visual.</p>	<p>Landscaping proposals will be secured by a Landscaping Strategy with mitigation measures included within the LEMP.</p>

Transport and Access	No	<p>Construction: The Proposed Development has considered Gate Burton within the transport assessment [EN010159/APP/6.21.2] and consequently has not reported any significant transport effects. Where there is use of the same roads such as the A57 and M1, these are considered to have sufficient capacity and at a distance away from each other such that transport on the A57 and M1 will not have a cumulative effect.</p> <p>Operation: Due to the low levels of transport numbers and movements during the operational phase, an operational assessment of transport was scoped out of both projects. Therefore, there will be no cumulative effects due to the low numbers of vehicles and lack of overlapping transport routes.</p> <p>Decommissioning: The Gate Burton Energy Park operational lifetime is expected to be 40 years (20 years earlier than the Proposed Development), and as such there is unlikely to be overlaps with the Proposed Development.</p>	<p>The Proposed Development lies beyond the 5km study area that Gate Burton applied to their cumulative assessment. However, when asked to consider The Proposed Development along with other NSIPs, Gate Burton reported that there would be no additional cumulative effects in respect of transport and access as the peak construction trips will overlap, therefore concluding no significant cumulative effects.</p>	<p>Construction: Measures to manage potential traffic impacts will be included within a Construction Traffic Management Plan.</p> <p>Management plans for the operation and decommissioning phases will also be implemented.</p>
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Summary: Whilst there are anticipated to be some cumulative effects, non are considered to be significant, with the exception of significant beneficial effects reported for BNG and some ecological receptors at a County level.

Project Name: Great North Road Solar and Biodiversity Park [EN010162]

Environmental Aspect	Within Environmental Aspect Zone of Influence	Details on Potential Cumulative Effect	Cumulative Effects between the other NSIP / Major Development and the Proposed Development as reported in the other NSIP / Major Development Project Planning Submission	Proposed Mitigation Measures included within the Proposed Development
Biodiversity	Yes	<p>During construction there is the potential for disturbance and displacement of a variety of fauna within the region during the overlap of construction periods. Disturbance and displacement of fauna for either project will however be localised and unlikely to alter the size, fitness or status of local populations of any given ecological feature. In addition, neither project reported any potential significant adverse effects during their construction phases, therefore significant cumulative effects are considered unlikely.</p> <p>Operation: Both projects are anticipated to become operational in Q4 2029, as per Figure 2. Once both projects are complete and operational, cumulative effects would be restricted to the potential benefit to biodiversity from the delivery of Biodiversity Net Gain and other landscaping measures. Both projects report beneficial (both significant and not significant) effects during their operational phases.</p>	<p>The Proposed Development does not fall within the 5km Zol that was used for the Ecology and Biodiversity cumulative assessment [EN010162/APP/6.2.8]. It is noted the Proposed Development sits at approximately 5km from this project. However, the project did not report any significant cumulative effects with any other project within the 5km Zol.</p>	<p>Construction: Measures for protecting biodiversity during construction would be included within the CEMP.</p> <p>Operation: the Landscaping Strategy would secure the BNG to be delivered. Measures to protect biodiversity will be included within the LEMP.</p> <p>Decommissioning: Measures for protecting biodiversity will be included within the CEMP.</p>

		<p>In particular, The Proposed Development reported significant beneficial to coastal and floodplain grazing marsh, hedgerow, ponds, wet ditches, neutral grassland, other breeding birds, water vole, brown hare and hedgehog at a County level, and no significant adverse effects at a County level.</p> <p>Decommissioning: Given that the Great North Road Solar and Biodiversity Park is only expected to be operational for 40 years, it will be decommissioned prior to The Proposed Development, meaning this phase will not overlap. However, any potential effects would be similar to those reported during construction, with effects being localised to each Site, and likely of less severity as below ground cables are anticipated to remain below ground which will limit habitat loss. No significant effects are reported for each project.</p>		
Cultural Heritage	No	<p>Construction & Operation: Whilst the project timelines will overlap, due to the distance of separation between the projects and lack of intervisibility there will be no significant cumulative effects to cultural heritage assets during any phase. Any impacts would be site specific and not result in significant cumulative effects.</p> <p>Decommissioning: The decommissioning phase is not anticipated to overlap, therefore there will be no cumulative effects.</p>	<p>The impact assessment [EN010162/APP/6.2.11] did not conclude any significant effects on heritage assets, and the cumulative assessment reported that when considered with The Proposed Development that there would be no increase in the identified effects on the identified assets.</p>	<p>Construction: Measures for protecting cultural heritage assets will be included within the CEMP.</p> <p>Operation: Landscaping measures and the detailed design will reduce impacts on cultural heritage assets at each Site.</p> <p>Decommissioning: Similar measures to the construction phase will be in place during decommissioning.</p>
Landscape and Visual	No	<p>The Proposed Development and the cumulative scheme will principally be located within the same National Character Area and Regional Landscape Character Areas but will otherwise be located in different District Landscape Character Areas as identified in the relevant published Landscape Character Assessments. However, the national and regional landscape character areas cover very large geographic extents in relation to the Proposed Development and the cumulative scheme collectively, such that undue changes to their baseline is considered very unlikely i.e. the key characteristics of the relevant character areas will remain unchanged as a result of the Proposed Development and cumulative scheme coming forward.</p>	<p>The Proposed Development was not considered within the assessment [EN010162/APP/6.2.7] due to limited visibility between the two projects. Where there is potential for views of both developments, they would both be relatively distant and would give rise to negligible changes to views. Therefore, no cumulative effects were reported.</p>	<p>Landscaping proposals will be secured by a Landscaping Strategy with mitigation measures included within the LEMP.</p>

		<p>The cumulative scheme is located approx. 4.84 km from the Proposed Development with large swathes of the landscape outside of the respective Order Limits and between the schemes remaining in its current baseline state. As such there will be no intervisibility between the Proposed Development and the cumulative scheme due to intervening topography, built structures and vegetation. Therefore, after seeing the Proposed Development, people will have to travel through a number of different District Landscape Character Areas, each contributing to a varied visual experience, before encountering the cumulative scheme.</p> <p>The submitted LVIA for the Proposed Development concludes that the standalone impacts would be localised. The large gap between the Proposed Development and cumulative scheme would serve to retain the key characteristics of the surrounding landscape as well as provide relief between views of solar PV infrastructure and therefore result in negligible difference to the wider landscape character and the way it is experienced by people passing through it.</p> <p>Therefore, cumulative landscape and visual effects between the Proposed Development and the cumulative scheme at construction, operation and decommissioning will not be significant.</p>		
Transport and Access	No	<p>Construction: The two projects do not share the same transport receptors or local transport routes, with impacts being site specific. Both projects did not report any significant transport effects, therefore there will be no significant cumulative effects during any phase. Whilst there is likely anticipated to be an overlap in the construction phase, any potential impacts to transport and access would be local to each Site.</p> <p>Operation: Due to the low levels of transport numbers and movements during the operational phase, an operational assessment of transport was scoped out (of The Proposed Development), with Great North Road concluding no significant transport and access effects. Therefore, there will be no cumulative effects due to the low numbers of vehicles and lack of overlapping transport routes.</p> <p>Decommissioning: The decommissioning phase is not anticipated to overlap, therefore there will be no cumulative effects.</p>	<p>The Proposed Development was not considered within the cumulative assessment [EN010162/APP/6.2.14] as it was determined that traffic generation levels were not significant enough to warrant a specific traffic report. Therefore, no cumulative effects were concluded.</p>	<p>Construction: Measures to manage potential traffic impacts will be included within a Construction Traffic Management Plan.</p> <p>Management plans for the operation and decommissioning phases will also be implemented.</p>
<p>Summary: Whilst there are anticipated to be some cumulative effects, non are considered to be significant, with the exception of significant beneficial effects reported for BNG and some ecological receptors at a County level.</p>				
<p>Project Name: West Burton Solar Project [EN010132]</p>				

Environmental Aspect	Within Environmental Aspect Zone of Influence	Details on Potential Cumulative Effect	Cumulative Effects between the other NSIP / Major Development and the Proposed Development as reported in the other NSIP / Major Development Project Planning Submission	Proposed Mitigation Measures included within the Proposed Development
Biodiversity	Yes	<p>During construction there is the potential for disturbance and displacement of a variety of fauna within the region during the overlap of construction periods. Disturbance and displacement of fauna for either project will however be localised and unlikely to alter the size, fitness or status of local populations of any given ecological feature. In addition, neither project reported any potential significant adverse effects during their construction phases, therefore significant cumulative effects are considered unlikely.</p> <p>Operation: Both projects will have overlapping operational periods, as per Figure 2. Once both projects are complete and operational, cumulative effects would be restricted to the potential benefit to biodiversity from the delivery of Biodiversity Net Gain and other landscaping measures. Both projects report beneficial (both significant and not significant) effects during their operational phases as a result of habitat creation and enhancement.</p> <p>In particular, The Proposed Development reported significant beneficial to coastal and floodplain grazing marsh, hedgerow, ponds, wet ditches, neutral grassland, other breeding birds, water vole, brown hare and hedgehog at a County level, and no significant adverse effects at a County level.</p> <p>Decommissioning: The impacts during the decommissioning phase are expected to be similar to, or less than, those experienced during construction; therefore, no significant cumulative effects are anticipated.</p>	<p>The West Burton project concluded that when considering The Proposed Development as an additional cumulative scheme that the conclusion of significant adverse effect on ground nesting birds at a District level would be unchanged [EN010132- EX7/WB8.2.5_B.]. No other cumulative ecology and biodiversity effects were reported.</p>	<p>Construction: Measures for protecting biodiversity during construction would be included within the CEMP.</p> <p>Operation: the Landscaping Strategy would secure the BNG to be delivered. Measures to protect biodiversity will be included within the LEMP.</p> <p>Decommissioning: Measures would be included within a DEMP.</p>
Cultural Heritage	No	<p>Construction & Operation: Whilst the project timelines will overlap, due to the distance of separation between the projects and lack of intervisibility there will be no significant cumulative effects to cultural heritage assets during any phase. Any impacts would be site specific and not result in significant cumulative effects.</p> <p>Decommissioning: Given West Burton Solar Project is only expected to be operational for 40 years, it will be decommissioned prior to The Proposed Development, meaning this phase will not overlap. Therefore there will be no cumulative effects.</p>	<p>The West Burton project concluded that when considering The Proposed Development as an additional cumulative scheme that there would be no significant cumulative effects on heritage assets [EN010132- EX7/WB8.2.5_B.].</p>	

Landscape and Visual	No	<p>The Proposed Development and the cumulative scheme will principally be located within the same National Character Area and Regional Landscape Character Areas but will otherwise be located in different District Landscape Character Areas as identified in the relevant published Landscape Character Assessments. However, the national and regional landscape character areas cover very large geographic extents in relation to the Proposed Development and the cumulative scheme collectively, such that undue changes to their baseline is considered very unlikely i.e. the key characteristics of the relevant character areas will remain unchanged as a result of the Proposed Development and cumulative scheme coming forward.</p> <p>The cumulative scheme is located approx. 4.68 km from the Proposed Development with large swathes of the landscape outside of the respective Order Limits and between the schemes remaining in its current baseline state. As such there will be no intervisibility between the Proposed Development and the cumulative scheme due to intervening topography, built structures and vegetation. Therefore, after seeing the Proposed Development, people will have to travel through a number of different District Landscape Character Areas, each contributing to a varied visual experience, before encountering the cumulative scheme.</p> <p>The submitted LVIA for the Proposed Development concludes that the standalone impacts would be localised. The large gap between the Proposed Development and cumulative scheme would serve to retain the key characteristics of the surrounding landscape as well as provide relief between views of solar PV infrastructure and therefore result in negligible difference to the wider landscape character and the way it is experienced by people passing through it.</p> <p>Therefore, cumulative landscape and visual effects between the Proposed Development and the cumulative scheme at construction, operation and decommissioning will not be significant.</p>	<p>The West Burton project concluded that when considering the Proposed Development as an additional cumulative scheme that the landscape and visual effects will not be significant [EN010132-EX7/WB8.2.5_B.]</p>	N/A
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Transport and Access	No	<p>Construction: The two projects do not share the same transport receptors or transport routes, with impacts being site specific, therefore there will be no significant cumulative effects during any phase. Whilst there is likely to be an overlap in the construction phase, any potential impacts to transport and access would be local to each Site. Where there is use of the same roads such as the A57, these are considered to have sufficient capacity and be distant enough from the sites that there will be no cumulative effect on these roads.</p> <p>Operation: Due to the low levels of transport numbers and movements during the operational phase, an operational assessment of transport was scoped out of The Proposed Development. West Burton concluded negligible and not significant effects for its operational phase [EN010132-APP/WB6.2.14]. Therefore, there will be no cumulative effects due to the low numbers of vehicles and lack of overlapping transport routes.</p> <p>Decommissioning: The decommissioning phase is not anticipated to overlap, therefore there will be no cumulative effects.</p>	<p>The West Burton project concluded that when considering the Proposed Development as an additional cumulative scheme that there would be no significant transport and access effects as construction vehicles servicing the solar array areas will not use the same road network. There will however be overlap in the use of the A57 for construction of the Proposed Development and construction vehicles for West Burton for the cable corridor. However, due to the nature of the A57, which has sufficient capacity, no significant cumulative effects are identified [EN010132-EX7/WB8.2.5_B.]</p>	<p>Construction: Measures to manage potential traffic impacts will be included within a Construction Traffic Management Plan.</p> <p>Management plans for the operation and decommissioning phases will also be implemented.</p>
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Summary: Whilst there are anticipated to be some cumulative effects, none are considered to be significant, with the exception of significant beneficial effects reported for BNG and some ecological receptors at a County level. It is noted that West Burton reported significant adverse effects in relation to effects on ground nesting birds, however the addition of the Proposed Development does not exacerbate this effect provided effective mitigation is put in place.

Project Name: Fosse Green Energy [EN010154]

Environmental Aspect	Within Environmental Aspect Zone of Influence	Details on Potential Cumulative Effect	Cumulative Effects between the other NSIP / Major Development and the Proposed Development as reported in the other NSIP / Major Development Project Planning Submission	Proposed Mitigation Measures included within the Proposed Development
Biodiversity	Yes	<p>Construction: As indicated in Figure 2, the indicative construction periods do not overlap with The Proposed Development construction completing at the end of 2029 and Fosse Green Energy not commencing until 2031. Neither project reported significant adverse effects during construction. Whilst there is the potential for negative effects during construction, such as habitat loss and species displacement, these would be considered to be site specific and would impact local habitat sites and species populations only, therefore there is no potential for significant cumulative effects.</p>	<p>The Proposed Development was considered within the Fosse Green Energy cumulative short list, however, was not included within the biodiversity cumulative assessment due to largely falling outside of the Zol of 10km. It was however noted in their cumulative assessment that there is potential for beneficial cumulative effects associated with biodiversity net gain delivered by the solar projects across Lincolnshire.</p>	<p>Construction & Decommissioning: Measures to manage biodiversity effects will be included within the CEMP and subsequent DEMP.</p> <p>Operation: The landscaping strategy and LEMP will provide details on habitat management during the operational phase.</p>

		<p>Operation: During operation there is the potential for significant beneficial effects in respect of the cessation of agricultural activity and the benefits this brings to habitats and species. Whilst the projects are not local to one another, there is the potential for significant beneficial effects to biodiversity on a whole when considering the BNG delivered during the operational phase and the cessation of agriculture across the wider area. Any potential negative effects in terms of contamination in the event of spillages would be local to each site and managed through appropriate controls and design measures such as bunded areas and drainage systems.</p> <p>The Proposed Development reported significant beneficial to coastal and floodplain grazing marsh, hedgerow, ponds, wet ditches, neutral grassland, other breeding birds, water vole, brown hare and hedgehog at a County level, and no significant adverse effects at a County level.</p> <p>Decommissioning: The decommissioning of the Fosse Green Energy project is unlikely to overlap with the Proposed Development (decommissioning is likely to occur in 2093).</p>		
Cultural Heritage	No	<p>Construction & Decommissioning: Any impacts to cultural heritage would be site specific, with neither project reporting significant cultural heritage effects with the implementation of mitigation measures such as setbacks and landscape planting. However as stated previously, these phases are not anticipated to overlap (Figure 2) and there is no intervisibility between them to create any potentially significant cumulative effects.</p> <p>Operation: As above, there is no intervisibility between the two sites, therefore when both projects are operational there will be no significant cumulative effects, with any effects being site specific and lessening in severity as the landscaping design evolves overtime.</p>	No cumulative effects in respect of cultural heritage reported as the Proposed Development fell outside of the Fosse Green Energy Zol of 3km.	<p>Construction & Decommissioning: Measures would be included within the CEMP and subsequent DEMP to limit immediate setting impacts.</p> <p>Operation: The detailed design and landscaping strategy will be implemented to reduce setting impacts to not significant.</p>
Landscape and Visual	No	The Proposed Development and the cumulative scheme will principally be located within the same National Character Area and Regional Landscape Character Areas but will otherwise be located in different District Landscape Character Areas as identified in the relevant published Landscape Character Assessments. However, the national and regional landscape character areas cover very large geographic extents in relation to the Proposed Development and the cumulative scheme collectively, such that undue changes to their baseline is considered very unlikely i.e. the key characteristics of the relevant character areas will remain unchanged as a result of the Proposed Development and cumulative scheme coming forward.	No cumulative effects in respect of landscape and visual were reported as the Proposed Development was not located within the 2km Zol.	Landscaping proposals will be secured by a Landscaping Strategy with mitigation measures included within the LEMP.

		<p>The cumulative scheme is located approx. 9.63 km from the Proposed Development with large swathes of the landscape outside of the respective Order Limits and between the schemes remaining in its current baseline state. As such there will be no intervisibility between the Proposed Development and the cumulative scheme due to intervening topography, built structures and vegetation. Therefore, after seeing the Proposed Development, people will have to travel through a number of different District Landscape Character Areas, each contributing to a varied visual experience, before encountering the cumulative scheme.</p> <p>The submitted LVIA for the Proposed Development concludes that the standalone impacts would be localised. The large gap between the Proposed Development and cumulative scheme would serve to retain the key characteristics of the surrounding landscape as well as provide relief between views of solar PV infrastructure and therefore result in negligible difference to the wider landscape character and the way it is experienced by people passing through it.</p> <p>Therefore, cumulative landscape and visual effects between the Proposed Development and the cumulative scheme at construction, operation and decommissioning will not be significant.</p>		
Transport and Access	No	<p>Construction: The construction periods are not anticipated to overlap (Figure 2). In addition to the substantial distance between the two projects, there will be no significant cumulative effects as the sensitive transport receptors are considered to be site specific, furthermore, each site will have site specific construction traffic measures in place such as designated construction routes and parking areas.</p> <p>Operation: An assessment on the operational effects was scoped out due to the anticipated low volumes of traffic generated, which would be restricted to maintenance visits, therefore no cumulative effects are likely.</p> <p>Decommissioning: The decommissioning of the Fosse Green Energy project is unlikely to overlap with the Proposed Development (decommissioning is likely to occur in 2093).</p>	No cumulative effects in respect of transport and access were reported due to the lack of temporal and geographical overlap.	<p>Construction & Decommissioning: Measures to manage traffic would be included within the CTMP and subsequent DTMP.</p> <p>Operation: During maintenance visits, vehicle movements would be managed via measures included within the OEMP.</p>
Summary: Whilst there are anticipated to be some cumulative effects, non are considered to be significant, with the exception of significant beneficial effects reported for BNG and some ecological receptors at a County level.				
Project Name: Tillbridge Solar [EN010142]				

Environmental Aspect	Within Environmental Aspect Zone of Influence	Details on Potential Cumulative Effect	Cumulative Effects between the other NSIP / Major Development and the Proposed Development as reported in the other NSIP / Major Development Project Planning Submission	Proposed Mitigation Measures included within the Proposed Development
Biodiversity	No	<p>During construction there is the potential for disturbance and displacement of a variety of fauna within the region during the overlap of construction periods. Disturbance and displacement of fauna for either project will however be localised and unlikely to alter the size, fitness or status of local populations of any given ecological feature. In addition, neither project reported any potential significant effects during their construction phases, therefore significant cumulative effects are considered unlikely.</p> <p>Operation: Both projects are anticipated to become operational in Q4 2029, as per Figure 2. Once both projects are complete and operational, cumulative effects would be restricted to the potential benefit to biodiversity from the delivery of Biodiversity Net Gain. Both projects report beneficial (both significant and not significant) effects during their operational phases.</p> <p>In particular, the Proposed Development reported significant beneficial effects to coastal and floodplain grazing marsh, hedgerow, ponds, wet ditches, neutral grassland, other breeding birds, water vole, brown hare and hedgehog at a County level, and no significant adverse effects at a County level.</p> <p>Decommissioning: Given that the two projects will have an operational life of approximately 60 years, there is the possibility that the decommissioning phases overlap as they are both due to be operational in Q4 2029. Any potential effects would be similar to those reported during construction, with effects being localised to each Site, and likely of less severity as below ground cables are anticipated to remain below ground which will limit habitat loss. No significant effects are reported for each project.</p>	The Tillbridge cumulative effects assessment [EN010142/APP/6.1] concluded that the cumulative effect of the embedded mitigation measures included within the solar DCOs will not generate significant effects on important ecological features.	<p>Construction & Decommissioning: Measures for protecting biodiversity during construction would be included within the CEMP, and for decommissioning in the subsequent DEMP.</p> <p>Operation: the Landscaping Strategy would secure the BNG to be delivered. Measures to protect biodiversity will be included within the LEMP.</p>
Cultural Heritage	No	All phases: Whilst the project timelines are anticipated to overlap, due to the distance of separation between the projects and lack of intervisibility there will be no significant cumulative effects to cultural heritage assets during any phase. Any impacts would be site specific and not result in significant cumulative effects.	The Proposed Development was not included within the Tillbridge cumulative assessment as it fell outside of the 5km Cultural Heritage Zol.	<p>Construction: Measures for protecting cultural heritage assets will be included within the CEMP.</p> <p>Operation: Landscaping measures and the detailed design will reduce impacts on cultural heritage assets at each Site.</p> <p>Decommissioning: Similar measures to the construction phase will be in place during decommissioning.</p>

Landscape and Visual	No	<p>The Proposed Development and the cumulative scheme will principally be located within the same National Character Area and Regional Landscape Character Areas but will otherwise be located in different District Landscape Character Areas as identified in the relevant published Landscape Character Assessments. However, the national and regional landscape character areas cover very large geographic extents in relation to the Proposed Development and the cumulative scheme collectively, such that undue changes to their baseline is considered very unlikely i.e. the key characteristics of the relevant character areas will remain unchanged as a result of the Proposed Development and cumulative scheme coming forward.</p> <p>The cumulative scheme is located approx. 16.3 km from the Proposed Development with large swathes of the landscape outside of the respective Order Limits and between the schemes remaining in its current baseline state. As such there will be no intervisibility between the Proposed Development and the cumulative scheme due to intervening topography, built structures and vegetation. Therefore, after seeing the Proposed Development, people will have to travel through a number of different District Landscape Character Areas, each contributing to a varied visual experience, before encountering the cumulative scheme.</p> <p>The submitted LVIA for the Proposed Development concludes that the standalone impacts would be localised. The large gap between the Proposed Development and cumulative scheme would serve to retain the key characteristics of the surrounding landscape as well as provide relief between views of solar PV infrastructure and therefore result in negligible difference to the wider landscape character and the way it is experienced by people passing through it.</p> <p>Therefore, cumulative landscape and visual effects between the Proposed Development and the cumulative scheme at construction, operation and decommissioning will not be significant.</p>	<p>The Proposed Development was not included within the Tillbridge cumulative assessment as it fell outside of the 10km Landscape and Visual Zol.</p>	<p>Landscaping proposals will be secured by a Landscaping Strategy with mitigation measures included within the LEMP.</p>
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Transport and Access	No	<p>Construction & Decommissioning: The two projects do not share the same transport receptors or transport routes, with impacts being site specific, therefore there will be no significant cumulative effects during any phase. Whilst there is likely to be an overlap in the these phases, any potential impacts to transport and access would be local to each Site. Where there is use of the same roads such as the A57 (which is likely to only be used for the cable route corridor for Tillbridge), these are considered to have sufficient capacity and be distant enough from the sites that there will be no cumulative effect on these roads.</p> <p>Operation: Due to the low levels of transport numbers and movements during the operational phase, an operational assessment of transport was scoped out of both projects. Therefore, there will be no cumulative effects due to the low numbers of vehicles and lack of overlapping transport routes.</p> <p>Decommissioning: The impacts during the decommissioning phase are expected to be similar to, or less than, those experienced during construction; therefore, no significant cumulative effects are anticipated.</p>	<p>The Tillbridge cumulative effects assessment [EN010142/APP/6.1] scoped out the Proposed Development project based on programme. It is however noted that there has been a slippage in the Tillbridge programme since the writing of this assessment which would mean that the programmes are anticipated to overlap, although the Tillbridge cumulative assessment concluded no significant effects with the other projects that they had scoped in, so it is unlikely that the inclusion of The Proposed Development would have generated a significant cumulative effect given the distance between the site.</p>	<p>Construction: Measures to manage potential traffic impacts will be included within a CTMP.</p> <p>Management plans for the operation and decommissioning phases will also be implemented.</p>
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Summary: Whilst there are anticipated to be some cumulative effects, non are considered to be significant, with the exception of significant beneficial effects reported for BNG and some ecological receptors at a County level.

Project Name: Steeple Renewables Project [EN010163]				
Environmental Aspect	Within Environmental Aspect Zone of Influence	Details on Potential Cumulative Effect	Cumulative Effects between the other NSIP / Major Development and the Proposed Development as reported in the other NSIP / Major Development Project Planning Submission	Proposed Mitigation Measures included within the Proposed Development
Biodiversity	No	<p>During construction there is the potential for disturbance and displacement of a variety of fauna within the region during the overlap of construction periods. Disturbance and displacement of fauna for either project will however be localised and unlikely to alter the size, fitness or status of local populations of any given ecological feature. In addition, neither project reported any potential significant adverse effects during their construction phases, therefore significant cumulative effects are considered unlikely.</p> <p>Operation: Both projects will have overlapping operational periods, as per Figure 2. Once both projects are complete and operational, cumulative effects would be restricted to the potential benefit to biodiversity from the delivery of Biodiversity Net Gain and other landscaping measures. Both projects report beneficial (both significant and not significant) effects during their operational phases as a result of habitat creation and enhancement.</p>	<p>The Proposed Development was scoped out of the Ecology and Biodiversity cumulative assessment as it fell outside of the Zol which was set at 3km.</p>	<p>Construction & Decommissioning: Measures for protecting biodiversity during construction would be included within the CEMP, and for decommissioning in the subsequent DEMP.</p> <p>Operation: the Landscaping Strategy would secure the BNG to be delivered. Measures to protect biodiversity will be included within the LEMP.</p>

		<p>In particular, The Proposed Development reported significant beneficial effects to coastal and floodplain grazing marsh, hedgerow, ponds, wet ditches, neutral grassland, other breeding birds, water vole, brown hare and hedgehog at a County level, and no significant adverse effects at a County level.</p> <p>Decommissioning: Given Steeple Renewables Project is only expected to be operational for 40 years, it will be decommissioned prior to The Proposed Development, meaning this phase will not overlap. Therefore there will be no cumulative effects.</p>		
Cultural Heritage	No	<p>Construction & Operation: Whilst the project timelines will overlap, due to the distance of separation between the projects and lack of intervisibility there will be no significant cumulative effects to cultural heritage assets during any phase. Any impacts would be site specific and not result in significant cumulative effects.</p> <p>Decommissioning: Given Steeple Renewables Project is only expected to be operational for 40 years, it will be decommissioned prior to The Proposed Development, meaning this phase will not overlap. Therefore there will be no cumulative effects</p>	<p>The Proposed Development was included within the cumulative assessment as it fell within the Cultural Heritage ZoI, however, no cumulative effects were reported within the Steeple Cultural heritage ES Chapter [EN010163/APP/6.2.9] due to the distance between the two projects and/ or lack of heritage assets impacted by both developments.</p>	<p>Construction: Measures for protecting cultural heritage assets will be included within the CEMP.</p> <p>Operation: Landscaping measures and the detailed design will reduce impacts on cultural heritage assets at each Site.</p> <p>Decommissioning: Similar measures to the construction phase will be in place during decommissioning.</p>
Landscape and Visual	No	<p>The Proposed Development and the cumulative scheme will principally be located within the same National Character Area and Regional Landscape Character Areas but will otherwise be located in different District Landscape Character Areas as identified in the relevant published Landscape Character Assessments. However, the national and regional landscape character areas cover very large geographic extents in relation to the Proposed Development and the cumulative scheme collectively, such that undue changes to their baseline is considered very unlikely i.e. the key characteristics of the relevant character areas will remain unchanged as a result of the Proposed Development and cumulative scheme coming forward.</p> <p>The cumulative scheme is located approx. 10.5 km from the Proposed Development with large swathes of the landscape outside of the respective Order Limits and between the schemes remaining in its current baseline state. As such there will be no intervisibility between the Proposed Development and the cumulative scheme due to intervening topography, built structures and vegetation. Therefore, after seeing the Proposed Development, people will have to travel through a number of different District Landscape Character Areas, each contributing to a varied visual experience, before encountering the cumulative scheme.</p>	<p>The Proposed Development was included within the cumulative assessment as it fell within the Landscape and Visual ZoI, however, no cumulative effects were reported within the Steeple Landscape and Visual Impact and Residential Amenity ES Chapter [EN010163/APP/6.2.6]. Stating that the project mitigation would limit the geographical extent of any impacts, and that due to the distance between the projects there would be no more than a negligible cumulative effect.</p>	<p>Landscaping proposals will be secured by a Landscaping Strategy with mitigation measures included within the LEMP.</p>

		<p>The submitted LVIA for the Proposed Development concludes that the standalone impacts would be localised. The large gap between the Proposed Development and cumulative scheme would serve to retain the key characteristics of the surrounding landscape as well as provide relief between views of solar PV infrastructure and therefore result in negligible difference to the wider landscape character and the way it is experienced by people passing through it.</p> <p>Therefore, cumulative landscape and visual effects between the Proposed Development and the cumulative scheme at construction, operation and decommissioning will not be significant.</p>	
Transport and Access	No	<p>Construction: The two projects do not share the same transport receptors or transport routes, with impacts being site specific, therefore there will be no significant cumulative effects during any phase. Whilst there is likely to be an overlap in the construction phase, any potential impacts to transport and access would be local to each Site.</p> <p>Operation: Due to the low levels of transport numbers and movements during the operational phase, an operational assessment of transport was scoped out. Therefore, there will be no cumulative effects due to the low numbers of vehicles and lack of overlapping transport routes.</p> <p>Decommissioning: Given Steeple Renewables Project is only expected to be operational for 40 years, it will be decommissioned prior to The Proposed Development, meaning this phase will not overlap. Therefore there will be no cumulative effects</p>	<p>The Proposed Development was not considered within the Transport and Access cumulative assessment as it fell outside of the Zol and they do not share transport routes.</p>
<p>Summary: Whilst there are anticipated to be some cumulative effects, non are considered to be significant, with the exception of significant beneficial effects reported for BNG and some ecological receptors at a County level, and significant adverse effects on accommodation which is highly unlikely to be realised due to differing construction programmes.</p>			

3.3 Collective Assessment of Inter-Project Effects

- 3.3.1 It is noted that there are potential regional effects, such as the loss of Best and Most Versatile (BMV) land; the impact of construction workers on local accommodation and the impact on the regional character area. These aspects have been considered separately as detailed below.

Land and Agricultural Use

- 3.3.2 Details regarding regional availability and the regional effects on Best and Most Versatile (BMV) land are provided in Chapter 18: Cumulative Effects, an updated chapter has been provided for Deadline 4 which includes details on total Utilised Agricultural Area (UAA) within the UK, as requested by Natural England. The latest text is provided below. A breakdown of agricultural loss at the District Level has been submitted as part of the Applicants Oral Submission [REP3-065] and is not represented.
- 3.3.3 During all phases of the projects measures will be implement by each NSIP Solar project to protect soil resources and maintain soil quality. These will include pollution prevention measures, as well as appropriate soil handling and storage practices. Such measures are detailed within each of the other NSIP Solar projects site-specific management documents, including the CEMP, or Soil Management Plan.
- 3.3.4 The area of BMV agricultural land within Nottinghamshire is estimated to be over 105,700 ha. The area of BMV agricultural land within Lincolnshire is estimated to be in the region of 410,000 ha.
- 3.3.5 Without the Proposed Development, if all other proposed developments for both temporary and permanent use on agricultural land were to be undertaken the total loss of BMV land within Nottinghamshire would be 2,186.09 ha (0 ha Grade 1, 35.3 ha Grade 2 and 2,150.79 ha Grade 3a). When the Proposed Development is added the cumulative total is 2,718.00 ha which is therefore 2.57% of the BMV within the county.
- 3.3.6 Without the Proposed Development, if all other proposed developments for both temporary and permanent use on agricultural land were to be undertaken the total loss of BMV land within Lincolnshire would be 6,915.77 ha (436.91 ha Grade 1, 3,161.27 ha Grade 2 and 3,317.59 ha Grade 3a). If the Proposed Development is added to the cumulative total of 7,044.00ha which is therefore 1.75% of the BMV within the county.

- 3.3.7 The total BMV land take of all temporary and permanent developments considered is 10,201.86 ha which is 0.061% of the total within the UK³. The total BMV land take of all other developments and the Proposed Development have a combined total of 10,862.76 ha which is 0.065% of UAA. The total land take of all land, not just BMV for all other proposed developments and the Proposed Development (both temporary and permanent) is 22,064.62 ha which is 0.126% of UAA. All possible land use changes are less than 1% of a national scale and therefore in accordance with the IEMA⁴ Guidance, the cumulative effects of BMV land will not be significant.

Construction Accommodation

- 3.3.8 With regards to the impact of construction workers on local accommodation, an assessment has been undertaken that can be found at **Appendix A**.
- 3.3.9 The analysis shows that while the other NSIP solar projects will likely bring in a significant number of short-term construction workers, there is likely to be sufficient accommodation to meet the demand in quantitative terms. Assuming several projects were constructed concurrently, at peak, the demand is estimated to occur in 2027 and will be around 1,370 workers.
- 3.3.10 Within a 60-minute drive of the Gainsborough Solar Farm NSIP solar projects (which includes Gate Burton Energy Park, West Burton Solar Project, Cottam Solar Project and Steeple Renewables), there are over 10,000 hotel, B&B, and inn rooms available. A wider assessment shows greater supply (over 12,000 rooms). In addition, there are more than 1,200 vacant private rental homes across the three local districts, which could provide longer-term housing during the construction phase. Other options, such as Airbnb, campsites, and individual room rentals, are not included in these figures and would further add to capacity.
- 3.3.11 When comparing supply to demand, quantitatively accommodation is generally sufficient throughout the year. The pressure points are in summer (June, July, September), when availability is lower due to seasonal tourism. However, vacant rental homes add capacity to keep more than 1,000 units available even during these peak months. As above, other sources such as Airbnb would further supplement this.
- 3.3.12 It is noted that any increase in accommodation use is also expected to bring economic benefits for local businesses and jobs which will have a beneficial effect for accommodation providers.

³ <https://www.gov.uk/government/publications/farming-evidence-pack-a-high-level-overview-of-the-uk-agricultural-industry/farming-evidence-key-statistics-accessible-version#:~:text=The%20UK%20agriculture%20industry%20is,than%2020%20hectares%20in%20size.>

⁴ Institute of Environmental Management & Assessment (IEMA) (2022) A New Perspective on Land and Soil in Environmental Impact Assessment.

- 3.3.13 Consequently the assessment concludes that there is likely to be sufficient accommodation to meet the needs during construction of the Proposed Development, taken into account the other solar NSIP projects. As such the cumulative effects will not be significant.

Regional character

- 3.3.14 As noted in Table 3-1, the Proposed Development and the cumulative schemes will principally be located within a number of the same Regional Landscape Character Areas as identified in the East Midlands Landscape Character Assessment.
- 3.3.15 Agriculture is the dominant land use currently reported within the regional landscape character assessment for these landscape character areas, as too is the existing influence of large-scale energy infrastructure, specifically coal-fired power stations and their associated power lines and pylons. Whilst the shift to solar infrastructure is not expected to exert the same visual presence as coal and gas-field power stations, it is very much consistent with the established character of these areas i.e. agricultural landscapes containing energy infrastructure.
- 3.3.16 The regional landscape character areas also cover very large geographic extents in relation to the Proposed Development and the other solar DCOs, with large swathes of the landscape outside and in between the respective Order Limits remaining in its current baseline state. The mitigation planting associated with each scheme would also serve to reduce the extent over which changes to the landscape would be perceived. Therefore, the key characteristics will remain largely unchanged as a result of the Proposed Development and other solar DCOs.
- 3.3.17 When considered collectively, the Proposed Development and the other solar DCOs would result in a relatively localised influence of solar PV infrastructure but given the size of the regional character areas and their baseline character, the cumulative effects will not be significant.

Appendix A Supply and Demand of Tourism Accommodation

Appendix A: Construction Accommodation

Supply and Demand on Tourism Accommodation

Executive Summary

This Technical Note was prepared by Logika Group, on behalf of the Applicant, to assess whether the construction of the One Earth Solar Farm, in combination with other solar Nationally Significant Infrastructure Projects (NSIPs), could result in a shortfall of temporary accommodation in the district with potential impacts on local tourism.

The analysis shows that while the NSIP solar projects will likely bring in a significant number of short-term construction workers, there is likely to be sufficient accommodation to meet the demand in quantitative terms. Assuming several projects were constructed concurrently, at peak, the demand is estimated to occur in 2027 and will be around 1,370 workers.

Within a 60-minute drive of the Gainsborough Solar Farm NSIP solar projects (which includes Gate Burton Energy Park, West Burton Solar Project, Cottam Solar Project and Steeple Renewables), there are over 10,000 hotel, B&B, and inn rooms available. A wider assessment shows greater supply (over 12,000 rooms). In addition, there are more than 1,200 vacant private rental homes across the three local districts, which could provide longer-term housing during the construction phase. Other options, such as Airbnb, campsites, and individual room rentals, are not included in these figures and would further add to capacity.

When comparing supply to demand, quantitatively accommodation is generally sufficient throughout the year. The pressure points are in summer (June, July, September), when availability is lower due to seasonal tourism. However, vacant rental homes add capacity to keep more than 1,000 units available even during these peak months. As above, other sources such as Airbnb would further supplement this.

It is noted that any increase in accommodation use is also expected to bring economic benefits for local businesses and jobs which will have a beneficial effect for accommodation providers.

1.1 Introduction

This Technical Note was prepared by Logika Group, on behalf of the Applicant, in response to a requirement arising from the One Earth Solar Farm DCO Issue Specific Hearing 1 (ISH 1), where Newark and Sherwood District Council and Lincolnshire County Council requested further detail on the cumulative effects of the One Earth Solar Farm ('Proposed Development') alongside other Nationally Significant Infrastructure Projects (NSIPs). Specifically this Technical Note considers the potential likely significant effect on tourism accommodation as a result of demand for accommodation from construction workers for the Proposed Development occurring concurrently with the other solar NSIPs.

The outline skills, supply and chain employment plan for the Proposed Development (and the corresponding plans developed for the other proposed projects) describe actions to support recruitment in the local area as much as practicable. However, a portion of these workers may travel to the sites from beyond a commutable

area¹. Whilst some may stay with friends and family or opt to commute a longer distance for a short period, at least a proportion of these workers may create additional demand for accommodation more locally.

Timescales for the construction of various schemes, along with expected start and end dates for construction have all been made public as contained with each of the NSIP submission documents. These indicate the timescales are staggered, limiting demand at any one time. However, delays to the construction of the other solar NSIPs may increase demand at specific points. If this demand for accommodation exceeds supply, there is a concern that this may mean tourists and visitors do not visit the area at all, or do so for shorter periods, with the associated economic benefits lost.

The approach to the assessment is as follows :

1. Potential Demand:

- Construction Timescales – Review of publicly available information on the construction programmes for the other solar NSIPs within a 15km radius of the Order Limits of the Proposed Development. The schemes are listed in Table 1-1. Schemes beyond this radius are not assessed. This approach has been adopted for two reasons. First, the available data on accommodation supply is based on a 60-minute drive time between Gate Burton (which is representative of the Cottam Solar Project, Gate Burton Energy Park, West Burton and Steeples Renewables) and Tillbridge Solar NSIPs. Second, the April 2025 interrelationships report prepared by the applicants of Gate Burton Energy Park, West Burton Solar Project, Tillbridge Solar and Cottam Solar Project, note in their assessment of potential for cumulative effects that each of the above projects has the potential to generate cumulative effects alongside the One Earth Solar farm, “except Tillbridge” given that it is “too far to have the potential to result in cumulative effects”². Whilst Tillbridge *has* been included in the assessment that follows, it is considered reasonable that this is used as the maximum distance for the purposes of this specific assessment.
- Potential Construction Timescales - As requested during ISH 1 considering the time lapse for Cottam Solar Project, Gate Burton Energy Park, West Burton and Tillbridge Solar, a conservative approach has been undertaken which assumes the construction of these schemes occur concurrently with the Proposed Development.
- Workforce Requirements – Use data from the socio-economic chapters of the Environmental Statements for each of the other solar NSIPs to identify the number of construction workers. This is based on the proportion of workers who are expected to be drawn from outside the local/study areas and hence may create additional accommodation demand. It is assumed local workers will not require accommodation.

2. Estimating Accommodation Supply – Summarise available data, at the time of writing, on the number of hotel, Bed & Breakfast (B&B) and Inn rooms a within a 60-minute drive of the Proposed Development and other solar NSIPs.

3. Additional Accommodation Sources – Consider other potential sources of accommodation (AirBnB and private rentals) that may also help meet demand and discuss other potential market responses and their effect on accommodation capacity.

4. Demand-Supply Balance – Assess the balance between accommodation demand and supply.

¹ The precise number depends on the skills required for the schemes, the capacity of the local labour market to accommodate the demand which in turn reflects a range of factors including wider economic conditions. Labour supply information indicates – in quantitative terms – a significant potential supply of labour in the local labour market – and has been provided as part of earlier RR responses. This issue is not discussed in the current note.

² Page 9 and Paragraph 1.2.6. [https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010142/EN010142-001197-Tillbridge%20Solar%20Limited%20-%207.6%20Joint%20Report%20on%20Interrelationships%20between%20Nationally%20Significant%20Infrastructure%20Projects%20Part%201%20of%203%20-%20Revision%202%20\(clean\)%20.pdf](https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010142/EN010142-001197-Tillbridge%20Solar%20Limited%20-%207.6%20Joint%20Report%20on%20Interrelationships%20between%20Nationally%20Significant%20Infrastructure%20Projects%20Part%201%20of%203%20-%20Revision%202%20(clean)%20.pdf)

1.2 Limitations and Assumptions

1.2.1 Information and Data

The data used within this Technical Note has been based upon details within the public domain as contained within the application submission documents for each of the relevant other solar NSIPs. As such the precise number of construction workers required are estimates and demand may well fluctuate at specific points once detailed construction programmes are produced for each solar NSIP. The available data are typically presented in the source documents using annual average number of Full Time Equivalent (FTEs). As such the absolute number of individual workers at any one time – including at peak times - may differ. Moreover, the total number of individual workers may differ from the FTE estimates.

The assessment does not consider the potential for overlaps in the construction workforce within the Gainsborough Solar Projects (i.e. that at least some of the workers described above may well be the same individuals), given that these projects have signed a Commercial Agreement to work together, which includes the use of a joint contractor for the shared cable corridor. This may also further limit accommodation demand.

1.2.2 Positive Economic Effect

Whilst this Technical Note considers the likely significant effect on accommodation demand, it should be recognised an increase in demand for accommodation in itself is a positive economic effect. An increase in accommodation demand will increase revenues for business owners as well as direct and indirect employment opportunities and expenditure in related supply chains. No account has been made of this in the note that follows but should be borne in mind. Similarly, an influx of construction workers may offset shorter-term adverse effects for accommodation providers that may arise from possible temporary decreases in demand for such accommodation during local construction works. This is discussed further in the socio-economic chapter for One Earth.

1.3 Potential demand

Table 1-1 presents publicly available data on the anticipated construction duration / start and end dates of each solar NSIP scheme. These are taken from the application submission documents in the PINS document library or the relevant project website. These may be subject to delay (see Cottam for example, where construction, as of September 2025 has not commenced). The table also summarises data on “*gross direct construction employment*” from each of the schemes. This means that these are the direct jobs that are expected to be filled by the scheme before any adjustments are made for displacement, leakage or multiplier effects. As such this figure is the best available approximation for potential accommodation demand from construction workers. Where the source data contains the relevant analysis, only the number of FTE jobs that are expected to be filled from outside of the defined study area (this is referred to as a “leakage” rate). The study area differs somewhat in each case but is noted in the table below. Note the data are typically presented as annual average FTEs.

Table Error! No text of specified style in document.-1 Construction employment demand and timescales

Scheme	Construction Start	Construction End	Employment demand
North Humber to High Marnham	From 2028	From 2031 ³	251 (FTE) gross direct employment per annum from “outside the study area” ⁴ .
High Marnham Substation	Q1 2028	Q4 2031 ⁵	No data provided in the PIER documentation ⁶
Cottam Solar Project	2024	2026 ⁷	Gross direct employment in the “rest of the regional area” (i.e. East Midlands) and Rest of UK is 167 FTE ⁸
Gate Burton Energy Park	Q1 2025	Q4 2027/2028 ⁹	139 FTE (gross direct employment from outside the study area, per annum) ¹⁰ .
Great North Road Solar and Biodiversity Park	Q1 2027 ¹¹	Q4 2029 ¹²	The approach differs from other assessments and uses “person years” of employment for construction work and for manufacturing of equipment. Various data points are shown: <ul style="list-style-type: none"> - 8,000 person years of direct employment as a result of both construction and manufacturing (Para 83). - 3,210 direct person years direct construction employment (para 88) - A leakage rate of 50% is assumed (Para 96), as such 1,605 of person years of employment assumed to be filled by workers not in the “local area” (Para 98, derived from applying the leakage rate to the direct jobs) - It goes on to note “as is standard within socio-economic assessments, it is considered that one permanent Full Time Equivalent (FTE) job is equivalent to ten person years of temporary employment” (Para 106). - As such, the gross direct employment demand for construction workers not expected to live in the local area is 160 FTE¹³.

³ <https://www.nationalgrid.com/the-great-grid-upgrade/north-humber-high-marnham/about-the-project>

⁴ National Grid, the great grid upgrade. North Humber to High Marham, Preliminary Environmental Information Report (February 2025). Volume 1 Chapter 17 Socio-economics, recreation and Tourism Table 17.23, Page 63. <https://www.nationalgrid.com/document/153756/download>

⁵ Source: <https://www.nationalgrid.com/electricity-transmission/network-and-infrastructure/infrastructure-projects/brinsworth-high-marnham-uprating/high-marnham-proposals>

⁶ National Grid, the great grid upgrade. North Humber to High Marham, Preliminary Environmental Information Report (February 2025). Volume 1 Substation and associated works <https://www.nationalgrid.com/document/153771/download>

⁷ Cottam Solar Project, January 2023. Environmental Statement chapter 18 socio-economic and tourism and recreation <https://nsip-documents.planninginspectorate.gov.uk/published-documents/EN010133-000238-C6.2.18%20ES%20Chapter%2018-Socio%20Economics%20Tourism%20and%20Recreation.pdf>

⁸ Cottam Solar Project, January 2023. Environmental Statement chapter 18 socio-economic and tourism and recreation Table 18.10, Page 52.

⁹ Gate Burton Energy Park, January 2023. Environmental Statement, Volume 1, Chapter 12 Socio-economics and land use <https://nsip-documents.planninginspectorate.gov.uk/published-documents/EN010131-000209-EN010131%20APP%203.1%20ES%20Chapter%2012.pdf>

¹⁰ Gate Burton Energy Park, January 2023. Environmental Statement, Volume 1, Chapter 12 Socio-economics and land use Table 12.21, Page 34.

¹¹ Great North Road Solar and Biodiversity Park phase 2 Consultation Booklet, January 2025 <https://static1.squarespace.com/static/63f72e89a711f627aa3bed70/t/677fa063672e0f33ee3be7de/1736417402924/Great+North+Road+Phase+Two+Central+Booklet.pdf>

¹² Great North Road Solar and Biodiversity Park, June 2025, Environmental Statement Volume 1, Chapter 13 socio-economics and tourism <https://nsip-documents.planninginspectorate.gov.uk/published-documents/EN010162-000201-GNR-6.2.13-ES-Ch-13-Socioeconomics.pdf> Para 13.8.1.1

¹³ Great North Road Solar and Biodiversity Park, June 2025, Environmental Statement Volume 1, Chapter 13 socio-economics and tourism. Section 13.8 from page 45.

Scheme	Construction Start	Construction End	Employment demand
West Burton Solar Project	Q1 2025 ¹⁴	Q4 2026 ¹⁵	Gross direct employment in the “rest of the regional area” (i.e. East Midlands) and Rest of UK is 106 FTE, per annum ¹⁶ .
Fosse Green Energy	2031	2033 ¹⁷	193 FTE gross direct employment, per annum, from those “outside of the study area” ¹⁸ .
Tillbridge Solar	2025	2027 ¹⁹	Average gross direct employment of 690 FTE from outside of a 60-minute drive time study area. ²⁰
Steeple Renewables	2027	2029 ²¹	An average of 164 on-site jobs per month. Of which 124 will be retained within (taken up by those who live in) Bassetlaw (para 10.7.6) and a further 10 by Nottinghamshire resident outside Bassetlaw (Para 10.7.8). This suggests around 40 jobs may be filled from those further afield. It is not clear if these are FTE jobs, it is assumed so ²² .
One Earth	2027	2029	554 FTE average gross direct jobs, applying the average of leakage rates assumed for each of the scheme above, suggests potential accommodation demand may arise from 296 FTE ²³ .

Sources: see footnotes

Figure 1-1 plots these data on a cumulative basis using three data scenarios points.

- First, **“expected demand”** plots the number of FTEs associated with each solar NSIP scheme against the published timescales (i.e. if all schemes are delivered as expected). This shows peak demand of between 1,202 (in 2025 and 2026) and 1,297 in 2027. The numbers then steadily decrease. The **“max demand”** line shows the maximum number that may require accommodations if all solar NSIP schemes are underway at the same time, based on the annual average FTEs associated with each; this amounts to 2,014. The focus of the current assessment is the NSIP solar schemes: Cottam Solar Project, Gate Burton Energy Park, West Burton, Steeple Renewables and, Tillbridge Solar, occurring concurrently with the Proposed Development. As such the third line shows total demand if all of these schemes are underway at the same time, again this is based on the annual average FTE employment expected to be drawn from outside the local area, for each scheme. This is shown in the line **“max demand NSIP”**. This amounts to 1,371.

¹⁴ Source: West Burton Solar, “Timeline”: <https://www.westburtonsolar.co.uk/>

¹⁵ West Burton Solar Project, Environmental Statement, Chapter 18: socio- economics and tourism and recreation Table 18.25 Cumulative construction assumptions <https://nsip-documents.planninginspectorate.gov.uk/published-documents/EN010132-000369-WB6.2.18%20ES%20Chapter%2018%20Socio%20Economics%20Tourism%20and%20Recreation.pdf>

¹⁶ West Burton Solar Project, Environmental Statement, Chapter 18: socio- economics and tourism and recreation Table 18.10 FTE employment per annum as a result of scheme construction

¹⁷ Source: <https://fossegreenenergy.co.uk/the-project/construction/>

¹⁸ Fosse Green Energy, July 2025. Chapter 12 Socio-economic and land use Table 12-23, Page 52. <https://nsip-documents.planninginspectorate.gov.uk/published-documents/EN010154-000243-6.1%20Chapter%2012%20SocioEconomics%20and%20Land%20Use.pdf>

¹⁹ Tillbridge Solar Project, <https://tillbridgesolar.com/planning/>

²⁰ Tillbridge Solar Project, April 2024. Volume 6 Environmental Statement, Chapter 14, Socio-economic and land use Table 14-17, Page 41 <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010142/EN010142-000228-6.1%20Chapter%2014%20Socioeconomics%20and%20Land%20Use.pdf>

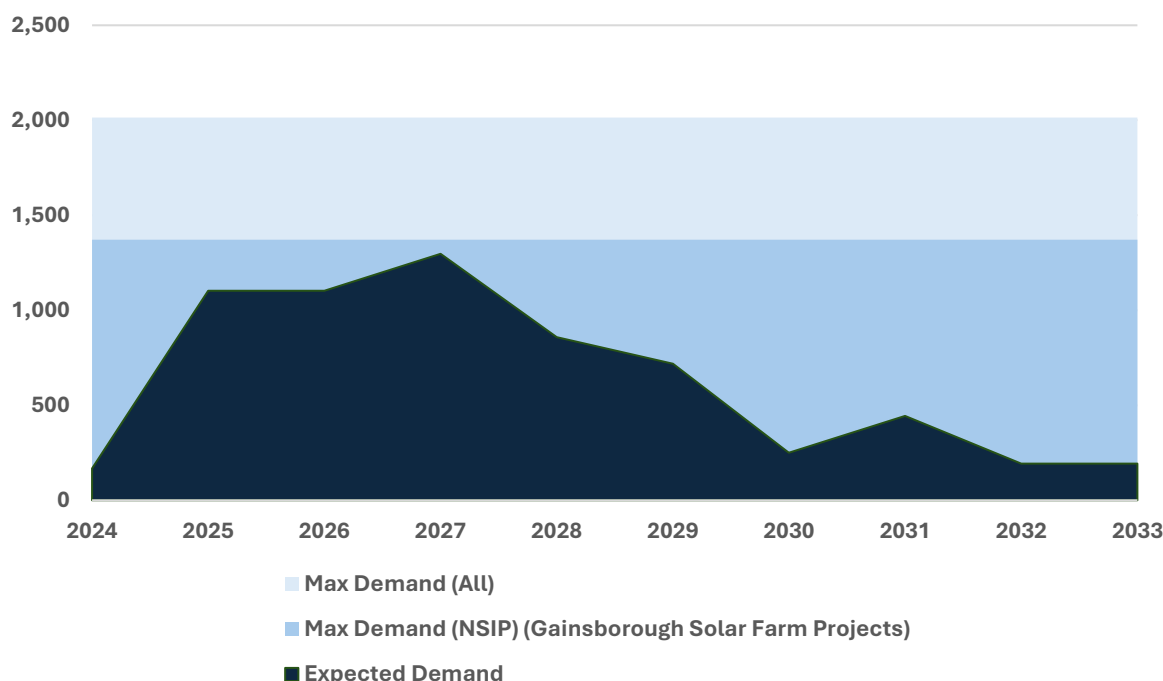
²¹ Steeples Renewable Project April 2025. Chapter 10 Socio-economics Paragraph 10.7.20, Page 41 <https://nsip-documents.planninginspectorate.gov.uk/published-documents/EN010163-000131-6.2.10%20Chapter%2010%203A%20Socio-Economics.pdf>

²² Steeples Renewable Project April 2025. Chapter 10 Socio-economics Pages 34 and 35

²³ Note the leakage rates assumed in each of the assessments differ somewhat. Leakage was not assessed in the OE socio-economic chapter as the extent of leakage depends on the capacity of the local labour market, the skill requirements of the roles and the effect of measures contained in the OSSCEMP. Leakage rates in the various other socio-economic assessment range from 24.3% (Steeple) to 85% (Tillbridge). This reflects different approaches to the assessment and the data used to support the judgment. But the average of the eight assessment is 49%. As such this rate has been applied the total gross direct job numbers from OE.

- The latter two data lines are shown as a constant for the whole period and shaded in blue, for illustration to show the theoretical highest demand that could be realised at any one point

Figure Error! No text of specified style in document.-1 Cumulative construction demand – scenarios



Source: See footnotes in Table 1-1. Each datapoint are taken from the project websites or the environmental statements.

1.4 Estimating accommodation supply

Table 1-2 presents available data on the supply of accommodation taken from the socio-economic chapters of relevant NSIP solar schemes. The approach, the data sources, and the geographical scope vary between assessments. For example, in the Cottam Solar Project and West Burton assessments, accommodation supply is considered at the district level. In contrast, the Steeples Solar Farm assessment uses both District and county-level (Nottinghamshire) data Derived from the “STEAM” dataset. For the Tilbridge Solar, Gate Burton Energy Park and Fosse Green Energy Park assessments, the analysis is based on an inventory of “hotel, bed and breakfast and inns accommodation” rooms within a 60 minute drive time of the site, using data supplied by “Costar”²⁴. This source is therefore considered more likely to be realistic assessment of supply both because of data quality and that it reflects a more realistic catchment area.

Data on supply, specifically within a 60-minute radius of the Proposed Development, requires bespoke data from a commercial supplier which is behind a paywall. The village of Gate Burton is a c. 13 minute drive from North Clifton and c.11 minutes from the north east of the Proposed Development Order Limits. This project is also one of the NSIP projects that is the focus of the concerns raised in ISH2, which are all in a relatively small area (collectively referred to as the Gainsborough Solar Farms); as such the data on supply from the Gate Burton socio-economic assessment has been used for the assessment as it is the best data available to represent the approximate supply of accommodation within a 60 minute drive time of the Gainsborough Solar

²⁴ <https://www.costar.com/news/gb>

Farms. This indicates supply, of around 10,145 rooms within a 60-minute drive time (of the Gate Burton site). This data appears to relate to the year 2022. For comparison, the Tillbridge assessment contains the same data and analysis. This indicates a somewhat larger supply (12,399). This likely reflects the greater proximity of Tillbridge Solar to the towns and conurbations to the north, both data are used to approximate potential supply that could accommodate construction worker demand from the Gainsborough Solar Farms. Note the inventory of rooms above appears to exclude provision from Airbnb, campsites, holiday parks or mobile homes or rental of individual rooms (i.e. lodging arrangements) etc. Data on this are not available.

Table Error! No text of specified style in document.-2 Accommodation supply and capacity

Scheme	Supply
Cottam Solar Project	“Known temporary accommodation stock of 1,419 units within the “Local Impact Area” of Bassetlaw District and West Lindsay District ²⁵ .
Gate Burton Energy Park	Supply of between 10,145-10,148 rooms within a 60-minute drive time of the site ²⁶ .
West Burton Solar Project	“Known temporary accommodation stock of 1,419 units within the “Local Impact Area” of Bassetlaw District and West Lindsay District ²⁷ .
Fosse Green Energy	Inventory rooms 7,606 within a 60-minute rush hour drive time commute of site ²⁸
Tillbridge Solar	Inventory of rooms 12,399 in local hotel, bed and breakfast and inns accommodation within a 60-minute drive of the scheme ²⁹ . See also Table 14-18 which indicates available spare capacity between 8,640 (January) and 2,689 (August).
Steeple's Renewables	Bassetlaw: Serviced accommodation bedspaces 1,268, non-serviced accommodations bedspaces 2,402 (January) and 2,760 (July) Nottinghamshire: Serviced accommodation bedspaces 5,138, non-serviced accommodation bedspaces 11,190 (January) and 13,801 (August) ³⁰

Sources: see footnotes

1.5 Additional Accommodation Sources

The data above does not examine potential additional supply via private rented accommodation. Several of the NSIP socio-economic assessment studies above also consider this. Available data - only available at District level, rather than the 60 minute drive time commuting catchment area above – is set out below:

- 2021 Census data indicate the numbers of household in the three districts of Bassetlaw: (51,458); Newark and Sherwood (53,331) and West Lindsay 42,345 amount to 147,134.
- The same sources provide data on the number and proportion of households in private rented accommodation. In Bassetlaw this is 8,351 (16.2%) in Newark and Sherwood (8,624, 16.2%) and in West Lindsay 7,570, (17.9%).

²⁵ Cottam Solar Project, January 2023. Environmental Statement chapter 18 socio-economic and tourism and recreation Para 18.7.19. https://nsip-documents.planninginspectorate.gov.uk/published-documents/EN010133-000238-C6.2.18%20ES%20Chapter%2018_Socio%20Economics%20Tourism%20and%20Recreation.pdf

²⁶ Gate Burton Energy Park, January 2023. Environmental Statement, Volume 1, Chapter 12 Socio-economics and land use Table 20-23 <https://nsip-documents.planninginspectorate.gov.uk/published-documents/EN010131-000209-EN010131%20APP%203.1%20ES%20Chapter%2012.pdf> Note this table shows data with monthly average occupancy and shows the remaining rooms available after that occupancy. The total supply has been calculated using this data.

²⁷ West Burton Solar Project, Environmental Statement, Chapter 18: socio- economics and tourism and recreation Table 18.12 Page 64 <https://nsip-documents.planninginspectorate.gov.uk/published-documents/EN010132-000369-WB6.2.18%20ES%20Chapter%2018%20Socio%20Economics%20Tourism%20and%20Recreation.pdf>

²⁸ Fosse Green Energy, July 2025. Chapter 12 Socio-economic and land use Table 12-26, Page 55-56. <https://nsip-documents.planninginspectorate.gov.uk/published-documents/EN010154-000243-6.1%20Chapter%2012%20SocioEconomics%20and%20Land%20Use.pdf>

²⁹ Tillbridge Solar Project, April 2024. Volume 6 Environmental Statement, Chapter 14, Socio-economic and land use Table 14-15, Page 26 <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010142/EN010142-000228-6.1%20Chapter%2014%20Socioeconomics%20and%20Land%20Use.pdf>

³⁰ Steeple's Renewable Project April 2025. Chapter 10 Socio-economics Paragraph 10.13, Page 31 <https://nsip-documents.planninginspectorate.gov.uk/published-documents/EN010163-000131-6.2.10%20Chapter%2010%203A%20Socio-Economics.pdf>

- The English Housing Survey provides data on vacancy rates as a proportion of dwellings, again from 2021 and using Census data. This indicates vacancy rates of around 5% in each of the three Districts. Note this is an overall figure, not for private rented per se. As such this implies around 1,220 vacant private rental dwellings in the three districts. Note this includes dwellings with more than one bedroom, which is not reflected in the number below.

Table Error! No text of specified style in document.-3 Private rented accommodation and vacancy

	Households [1]	Number Private Rented [2]	Overall Vacancy Rates [3]	Implied Vacancy (Approx)
Bassetlaw	51,458	8,351	5.21%	435
Newark and Sherwood	53,331	8,624	4.71%	406
West Lindsay	42,345	7,570	5.02%	380
Total	147,134	24,545	~	1,221

Sources: [1] TS041 – Number of households, 2021 Census, downloaded from NOMIS 1st July 2025. [2] TS054 – Tenure, 2021 Census. Downloaded from NOMIS, 1st July 2025. [3] Number of vacant and second homes, England and Wales: Census Figure 4: Percentage of all dwellings that are second homes (with no usual residents) and vacant dwellings, local authorities, England and Wales, 21 March 2021
<https://www.ons.gov.uk/peoplepopulationandcommunity/housing/bulletins/numberofvacantandsecondhomesenglandandwales/census2021>

1.6 Supply and demand balance

This section examines the balance of demand and supply using the two analyses above.

The first step applies data on total accommodation supply within a 60-minute drive time of the Gate Burton site (as a proxy for supply for the Gainsborough Solar Farms). Average occupancy rates for England, published by Visit Britain, are then used to establish the likely remaining capacity over the course of any one year³¹. This step has been undertaken as demand varies seasonally, with supply ranging from approximately 3,600 rooms (January) to 1,500 (July). When compared against the “maximum demand NSIP” of 1,371 described above this suggests in quantitative terms a sufficient supply is available throughout the year. However, availability becomes significantly more reduced in the summer months, particularly June (354), July (151) and September (252). Note, this assumes that demand from each of the NSIP schemes materialise at the same time, that all of the employees require accommodation and that none share rooms, i.e. the worst case.

The analyses above also suggests that private rental accommodation could supplement hotel accommodation. This may be a cost effective and suitable option for those who may be required on site for longer periods and or those wanting to share to reduce costs. Whilst the District level data on private rental supply does not align exactly with the 60-minute catchment above, it provides an idea of the scale of supply in the local area. As such the table below also shows the remaining hotel supply alongside the approximate remaining supply of vacant private rental accommodation. This suggests spare capacity of over 1,000 rooms/units throughout the year. These data are presented in Table 1-3 and visually in Figure 1-2.

Finally, the data above in Table 1-2 suggests that the accommodation supply within a 60-minute drive time of the Tillbridge Solar is quantitatively greater than Gate Burton (some 12,399 rather than 10,146). This suggests that at least some of the potential demand from Tillbridge Solar is expected to be accommodated in areas

³¹ England Room Occupancy data Visit England, August 2025 results. England room occupancy data average by month (2024 is the latest complete year of data). <https://www.visitbritain.org/research-insights/england-hotel-occupancy-latest>. Note regional or local occupancy data is not available on a monthly basis. But the overall regional occupancy rates for the East Midlands as of 2025 is available in the same data set. This suggests that average occupancy in the region was below the England average in each of 2023, 2024 and 2025 so using the national rates is likely conservative estimate.

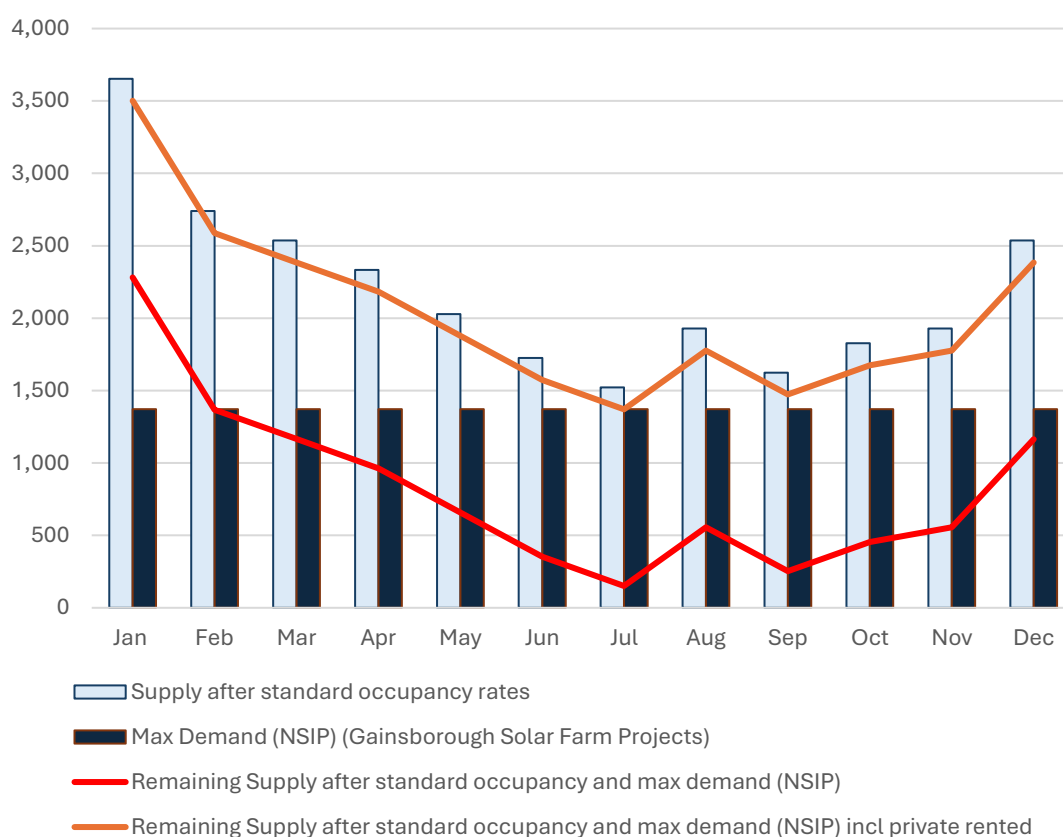
beyond the catchment area for the Gate Burton site. This in turn suggests that using the Gate Burton supply data as an approximation for total demand from the Gainsborough Solar Farms is a conservative approach. This is important, as the demand expected to arise from the Tillbridge schemes (690 FTEs) is the largest of all the Gainsborough NSIP projects. For illustration, recreating the same analysis as Table 1-2 using this larger 12,299 supply data would increase the spare capacity in June (to 737), July (to 489) and in September (to 613). As above, any rental accommodation would be in addition to this.

Table Error! No text of specified style in document.-4 Accommodation supply and capacity

Month	Total Supply 60 mins (from Gate Burton)	Average standard occupancy	Remaining supply	“Max Demand NSIP”	Remaining Supply after standard occ and NSIP	Remining supply including private rented
Jan	10,146	64%	3,653	1,371	2,281	3,501
Feb	10,145	73%	2,739	1,371	1,368	2,588
Mar	10,146	75%	2,537	1,371	1,165	2,385
Apr	10,147	77%	2,334	1,371	962	2,182
May	10,146	80%	2,029	1,371	658	1,878
Jun	10,146	83%	1,725	1,371	354	1,574
Jul	10,147	85%	1,522	1,371	151	1,371
Aug	10,148	81%	1,928	1,371	557	1,777
Sep	10,148	84%	1,624	1,371	252	1,472
Oct	10,148	82%	1,827	1,371	455	1,675
Nov	10,146	81%	1,928	1,371	557	1,777
Dec	10,145	75%	2,536	1,371	1,165	2,385

Sources: See footnotes in Table 1-1, Gate Burton socio-economic chapter, Visit Britain (2025). 2021 Census

Figure Error! No text of specified style in document.-2 Demand Supply Balance – scenarios



Sources: See footnotes in Table 1-1, Gate Burton socio-economic chapter, Visit Britain (2025). 2021 Census

1.7 Conclusions

The analysis indicates that, in quantitative terms, there is likely to be sufficient accommodation supply to meet the needs of employees associated with the construction of Cottam Solar Project, Gate Burton Energy Park, West Burton, Steeples Renewables, Tillbridge Solar and the Proposed Development, assuming simultaneous construction and that all non-local employees require accommodation.

Although the data suggest particularly high occupancy in the summer months, this constraint is expected to be offset by differences in the 60-minute catchment areas – specifically for the Tillbridge Solar scheme – where additional supply is available. Moreover, vacant private rental accommodation is a potential further cost-effective option for those required on site for longer periods and which could supplement this supply if it is needed. The available supply data does not appear to include other arrangements such as lodgings or “Air B&B”. For those who are able to provide such accommodation, this is a relatively flexible way to accommodate an increase in demand whilst supplementing earnings.

Finally, during period of concentrated construction activity, any temporary increase in demand may benefit the local economy by supporting higher occupancy levels in existing accommodation and generating additional income for associated service providers.

A final issue that has not been considered in the assessment is the potential for overlaps in the construction workforce within the Gainsborough Solar Projects (i.e. that at least some of the workers described above may

well be the same individuals), given that these projects have signed a Commercial Agreement to work together, which includes the use of a joint contractor for the shared cable corridor. This may also further limit accommodation demand.



one earth
solar farm